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ABSTRACT

This issue of the Illinois Association for Gifted Children (IAGC) Journal focuses on curriculum. Featured articles include: (1) "Curriculum: What Is It? How Do You Know if It Is Quality?" (Sally Walker); (2) "Tiered Lessons: What Are Their Benefits and Applications?" (Carol Ann Tomlinson); (3) "Do Gifted and Talented Youth Get Counseling, Models, and Mentors To Motivate Them To Strive for Expertise and Creative Achievement?" (John F. Feldhusen); (4) "Biography Is the People Subject" (Jerry Flack); (5) "Abraham Lincoln: Gifted Man and a Hero for the Ages" (Jerry Flack); (6) "Responding to Failure" (Ann MacDonald and Jim Riley); (7) "The Not-So Gifted Parent: Replacing Trial and Error with Identification and Intervention" (Monica Lu); (8) "They Don't Teach THAT in School" (Dorothy Funk-Werbio): (9) "A Poet in a Classroom of Engineers and Lawyers: Identifying and Meeting the Needs of Artistically Gifted Children" (Nancy Elf and Pat Rose); (10) "A Visit from a Poet and Other Literary Devices" (J. Christine Gould); (11) "Creative Application: A Necessary Part of a Comprehensive Curriculum in the Gifted Middle School General Music Classroom" (Lois Veenhoven Guderian); (12) "Marching to the Beat of an Ever Different Drummer" (Sylvia Rimm); (13) "Teaching to the Learning Styles of Creatively Gifted Children" (Joan Franklin Smutny); (14) "The Millennium: A Time for Looking Forward and Looking Back" (E. Paul Torrance); and (15) "Must-Have Books for Educators of the Gifted and Talented" (Jerry Flack). (Some articles include references.) (CR)

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Edited By
Joan Franklin Smutny

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FROM THE EDITOR'S DESK

Joan Franklin Smutny

The past decade has witnessed a new wave of research and writing on the subject of curriculum for gifted students. In part, the state of gifted education in our country has influenced this. It has become evident that national and state funds for education will most likely continue to target the mainstream and those at the lower end of the achievement spectrum. President Bush's campaign to "leave no child behind," while laudable, has sent clear signals to those of us in the gifted community not to expect much in the way of financial support for gifted education.

What President Bush and mainstream educators in general do not understand is that to truly "leave no child behind" also means leaving no gifted child behind his or her potential. To put such a campaign into action would translate into a curriculum that met the unique learning needs of gifted students-something only a small percentage of the gifted population have today.

Because funds for gifted education are not always forthcoming and the programs we have in place may function on a part time basis, researchers and scholars have sought alternative ways to meet the full-time needs of gifted students. *Teaching Gifted Kids in the Regular Classroom* (Winebrenner, 1992; a revised and expanded edition published in 2000) and *Teaching Young Gifted Children in the Regular Classroom* (Smutny, Walker & Meckstroth, 1997) both provided regular classroom teachers with practical strategies they could implement in their classrooms to enable gifted students to learn at a pace and level commensurate with their ability. The idea was that if regular classroom teachers became competent in adjusting their curriculum for gifted children, these children would spend more time actually learning.

At the same time, the movement to differentiate instruction (Tomlinson, 1999) has served the cause of gifted in influential ways. It addresses any prejudices against gifted education by the argument that all students (including the gifted) have unique and different learning needs and that our educational system must meet these different needs. In this context, more districts have been less affronted by the claims that gifted students need special education. Adjusting instruction at different points in the curriculum for anyone who needs it (a child struggling with a learning disability as much as a child who is ready to progress to more advanced work) is an ingenious response to the nay-sayers who have long maintained that gifted students shouldn't be treated like a special class.

Within the last year, a group of researchers presented a new concept—the "parallel curriculum." The parallel curriculum (Tomlinson, Kaplan, Renzulli, Purcell, Leppien & Burns, 2002) allows regular classroom teachers to work with any of four approaches to curriculum (core curriculum, curriculum of connections, curriculum of practice, and curriculum of identity) in order to increase the challenge, complexity, and interest for all students, including the gifted. It draws on many, if not all of the principles of differentiation and focuses them through four parallel strands. While still too soon to be fully tested or evaluated in schools today, the model promises to be a comprehensive system for teachers who want all their students to benefit from a richer curriculum.

The articles in this issue of the IAGC Journal all ask teachers to re-think the goals and aims of their existing curriculum and design ways to help their gifted students build on knowledge, skills, and concepts along a continuum of increasing intellectual and creative challenge. The issue is divided into three sections. The first is a general curriculum section that includes a range of concerns, issues, and teaching ideas. The second section focuses specifically on the curriculum as related to creativity and the arts. The third section reviews some resources teachers will find useful in the classroom.

Sally Walker, Carol Ann Tomlinson, and John Feldhusen explore different ways to support and sustain the growth of gifted students through the curriculum. Walker re-assesses the meaning of "curriculum" and how teachers can design and organize content to meet the learning needs of gifted children. Tomlinson examines the effectiveness of tiered lessons in enabling the gifted to work at their own level and pace. Feldhusen addresses the need for a greater emphasis on counseling and mentoring in any curriculum for gifted students.

In his two articles, Jerry Flack demonstrates a wide range of strategies for teachers to use in a curriculum that incorporates the study of biography. In addition to the content itself, gifted students benefit from an exposure to the life struggles and triumphs of other gifted people. Ann MacDonald and Jim Riley explore the value of a curriculum that focuses on that most dreaded phenomenon—failure. They present practical strategies for helping gifted students to turn failure to their own advantage and experience greater success and achievement in the future.

Monica Lu shares her insights about the learning needs of gifted students based on her experience raising gifted daughters. Dot Werblo outlines her concerns about the state of the curriculum in our country and how the lowering of standards has affected the achievement level of our most gifted population.

In the second section, Nancy Elf and Pat Rose investigate the unique challenges of artistically gifted students in the regular classroom. J. Christine Gould describes how she ignited the interest of her gifted students in poetry and used some drama techniques to stimulate creative and higher level thinking. Lois Guderian examines the subject of music for gifted students and narrates her experience integrating creativity into a comprehensive curriculum in a school for gifted children, kindergarten through eighth grade.

Sylvia Rimm analyzes the causes and cures for underachieving creatively gifted children. Joan Smutny presents strategies for integrating the arts and creative thinking into the regular curriculum as a way of responding to the learning styles of creative students. E. Paul Torrance presents the results of his longitudinal study on creativity and makes some projections for the future of the field of creativity based on past and current trends.

Certainly, this issue provides some useful guidance and teaching ideas to build a new kind of curriculum for gifted

students—whether their strengths lie more in the academic or creative domain. At a time when funds are uncertain for our future, nothing could be more vital than grassroots efforts to help our most promising children develop their abilities. Expanding our knowledge and expertise in the area of curriculum is the most practical way we can respond to the rallying call of our field—"To leave no gifted child behind."

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CURRICULUM: WHAT IS IT? HOW DO YOU KNOW IF IT IS QUALITY?

By Sally Y. Walker

When the word curriculum comes up what do you think of? What does your district consider curriculum? I recall when I first started teaching I thought that the textbook was the curriculum. Later, I expanded my definition to include the binder (the district's grade level curriculum) that was given to me by the curriculum coordinator. Then, we had objectives that we wrote, which changed to outcomes and now have been replaced by standards. The standards have in some instances become the curriculum. All of these are ingredients of curriculum, but not the total curriculum. Tomato sauce, mushrooms, bell pepper, dried pasta, garlic, ground beef, beans, spices, salt and pepper are not a meal. They are all ingredients. We could prepare many different combinations, based on the ingredients. We could make a base sauce to be used on different dishes. Our meal would depend on the diet needs and tastes of our diners.

Curriculum, like a meal, depends on a plan. It must be proactive, purposeful, organized, and sequenced. Curriculum includes the management of interactions between the teacher, student and content knowledge, understandings and skills we want students to acquire. The degree to which you have diversity is the degree to which you need to vary your curriculum. Differentiation is the appropriate fit or match between curriculum and the traits of the individual learner. No one curriculum can meet ALL needs of ALL learners. Curriculum has to be aligned to student needs so that learning experiences match the student. Most curriculum is not inappropriate for the diversity of learners, just insufficient. All students need the best possible match. To be effective in curriculum development an educator needs to be a technician, an architect, an artist and/or a gourmet chef.

What are the key features of a curriculum design plan?

- Content
- Ongoing Assessment and Feedback
- Introductory Activities
- Teaching Strategies
- Learning Activities
- Resources
- Product Development and Performances
- Modification Techniques (Differentiation for learners with special needs)
- Grouping Strategies
- Extension Activities
- Time Allocations
  (From The Parallel Curriculum)

Curriculum must also consider scope and sequence. The scope of curriculum considers how much to teach and the sequence determines when and in what order the information is taught.

Scope and sequence needs to be based on:

1. Readiness, both physical and psychological
2. Future learning needs. Look ahead to prepare children for success.
3. Based on past learning. What prior learning have they experienced? How fast can they learn?
4. Motivation and interests of the student.
5. Sophistication of the areas of study.
6. Role of the student in society. We want all individuals to have an understanding of self and how they will function as a productive citizen.

Content

Content is the main dish of the curriculum meal. It contains the substance that generates the thinking process and the product. Content can be categorized into segments based on the field of study.

What are the branches and fields of knowledge?

The Arts	The Sciences
Visual Arts	Mathematics
Performing Arts	Social Sciences
Philosophy	Life Sciences
Language	Physical Science
Literature	Earth Science

Fields of study in Social Science

Psychology	Political Science
Geography	Anthropology
History	Forensic psychology
Sociology	Criminal Justice
Archeology	Education
Ethnography	Child psychology
Economics	Ancient history
Law	Women's history

Discipline-based knowledge is essential knowledge in a discipline.

- It reveals the nature of the discipline.
- It is constant within any discipline related topic.
- It provides a scaffold for the novice and expert learners.
- It spirals throughout the continuum of expertise.
- It is of service to children and adults.
- A culture believes children should learn it.

The structure of knowledge can be arranged in an ascending hierarchy.

Discipline-Based Knowledge Hierarchy

Theory
Generalizations
Principles
Concepts
Facts

Facts consist of specific details, or verifiable information. Facts are discrete pieces of information that we believe to be true. These facts typically fall within topics. Skills are the proficiency, ability, or technique, strategy, method or tool.

What is a representative topic? A representative topic is specific subject matter that is selected purposefully as a focus for teaching and learning because of the topic's potential for illuminating the essential concepts, principles and skills in a related discipline.

A good representative topic:

- is reflective of the knowledge in a discipline
- is interesting to students and teacher
- is familiar to students and understood in depth by the teacher
- ignites and illuminates multiple relationships between the topic and knowledge in the discipline
- lends itself to the use of available resources and student materials.

Concepts are general ideas or understandings, especially a generalized idea of a thing or class of things, a category or classification. They are a way of organizing things that have something in common. Some concepts can even span across subjects and can represent significant ideas or persistent problems. For example, migration is a concept that can draw together topics of westward expansion, economics, psychological and social reasons for movement.

Principles consist of fundamental truths, laws, doctrine, or rules that explain the relationship between two or more concepts. Principles are the ideas and deeper understands that give meaning to the concepts. They are also referred to as the "big ideas". They are the truth that holds consistently through time.

Examples:

- People migrate to meet a variety of needs.
- Migration may lead to enhanced opportunity or greater freedom.
- Family and society share a reciprocal relationship.
- The natural resources of a region influence the economy and lifestyles of its inhabitants.
- Stories can shed light on the complexities and inconsistencies in our relationships and in us.
- Authors do not always say exactly what they mean and mean what they say (literally).
- Data analysis often reveals patterns and enables predictions.
- Numbers tell stories and describe relationships.
- Mathematical ideas can be represented concretely, graphically and symbolically.

Generalizations are principles or concepts that can be applied across topics or disciplines.

Examples:

- Patterns help us to predict.
- Patterns have an internal order.
- Change in one area is affected by and leads to changes in other areas.
- Change is inevitable
- Attitudes can be positive or negative.
- Experiences effect change.
- Exploration requires taking risks.
- Conflict can be natural or man made.
- Conflict may be intentional or unintentional.
- A community has members.
- Community members share a common environment.
- Systems are composed of subsystems and parts.

Concepts or themes are mental constructs that frame a set of examples sharing common attributes. Concepts are timeless, universal, abstract, and broad. They may be very broad, such as *change, systems, power, patterns or interdependence* or they may be more specific such as *organisms, solution, habitat or government*.

Examples of concepts/themes:

Adaptation	Altruism	Beauty	Cause & Effect
Change	Classification	Commitment	Conflict
Conservation	Constancy	Courage	Culture
Cycles	Destruction	Discovery	Equality
Equilibrium	Eternity	Ethics	Evil
Exploration	Extinction	Fairness	Fantasy
Form	Freedom	Ideas	Identity
Individuality	Infinity	Interaction	Interdependence
Invention	Justice	Loyalty	Migration
Myth	Order	Ownership	Patterns
Perspective	Persuasion	Power	Relationship
Resolution	Responsibility	Revolution	Rituals

Spirituality	Survival	Systems	Tolerance
Tradition	Truth	Value	Violence
Voice			

Discipline-based concepts can include:

- Art—color, form, line, negative space, shape, texture.
- Literature—heroes and antiheroes, interactions, motivation, perception, voice
- Mathematics—number, proportion, probability, quantification
- Music—harmony, melody, pitch, tempo, timbre
- Physical Education—effort, movement, play, quality, rules, space, strategy
- Science—classification, evolution, cycle, matter, order
- Social Studies—cooperation, conflict, culture, governance, revolution

Overarching concepts connect many disciplines and topics, themes, principles, generalizations, processes or dispositions across disciplines and problems.

The purpose of making connections is:

- To discover key ideas in multiple contexts
- To examine variance across contexts
- To use ideas from one context to understand another context
- To use connections and contexts to formulate questions and hypotheses
- To improve depth of understanding
- To foster the development of analogical reasoning and metaphoric thinking
- To see the world in a grain of sand
- To enhance perspective
- To improve problem solving
- To "make the strange familiar"
- To develop wisdom
  (Parallel Curriculum)

What are Essential Questions?

Essential questions or inquiries are open-ended questions that drive investigations of topics and ideas toward conceptual levels of understanding. They assist the curriculum writer by framing the activities and lessons that lead students toward understanding.

Examples of essential questions are:

- How does what we say and do reveal our personality?
- How does geographic location shape cultural beliefs?
- How does the position and power of a number determine its value?
- How does art shape a culture?
- How does culture shape art?
- What relationship exists between friction and distance a car travels?
- How is freedom viewed in various political systems?
- How is our community different than others?
- How does location shape change and innovation?
- Can all conflicts be resolved?

As you can tell there are many ingredients in our content menu. The state standards, district driven curriculum and the learners in the classroom determine the way we mix them. The process skills or thinking skills are the vehicle students use to make sense of or construct meaning of the content or big ideas. The thinking skills relate to Benjamin Bloom's Taxonomy of thinking: knowledge, comprehension, application, analysis, synthesis and evaluation. Each of the levels of thinking provides more ingredients that add to our curriculum menu.

Products are the vehicles that students have to show understanding. They are the application of the content and process skills in a format that may be written, verbal, visual, kinesthetic or technological.

What are ways that gifted educators can take the curriculum that is prescribed by the state or district and ratchet it up to meet the needs of our gifted learners? Educators can:

- Introduce challenging new concepts and advanced content.
- Use advanced vocabulary.
- Develop authentic products of service.
- Use authentic "tools" related to the topic.
- Teach specific, authentic methodologies.
- Use advanced resources and reference materials.
- Use advanced thinking and problem-solving strategies.
- Integrate creative thinking and critical thinking.
- Integrate different points of view and historical perspectives.
- Develop presentations or performances.
- Assist the student to make a connection with the subject and to explore their own questions.
- Encourage students to compare and model their own work with exemplars in the field.
- Use content, strategies, resources, products and activities that support students' differing interests and learning needs.

Become a technician, an architect, an artist and/or a gourmet chef. The ingredients are waiting.

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TIERED LESSONS: WHAT ARE THEIR BENEFITS AND APPLICATIONS?

By Carol Ann Tomlinson

Jason was confused about what the teacher was explaining, and his face made that clear to the teacher. Tia was frustrated too. She knew the teacher was about to explain again (for at least the third time) something she already understood.

Although the students weren't aware of it, their teacher was frustrated too. She needed to be sure each of her students was comfortable and competent with what she was trying to teach, but it was clear to her that the work she planned was frustrating some students, boring others, and seemed to accomplish her goals for still other students. It was difficult to make the class a good fit for all of her learners when their past experiences, background knowledge, and pace of learning varied so widely.

Tiered Lessons to the Rescue

One instructional strategy of great benefit in any class where students learn at varying paces and to varied depths is the strategy called tiering. This instructional strategy allows a teacher to accomplish two critical things at once. First, tiering allows the teacher to keep all students focused on the same essential learning goals. Second, tiering enables the teacher to develop student tasks and products that are at appropriate levels of complexity for the varied learners in the classroom.

In essence, a tiered lesson enables all students to work on common goals, but at a degree of difficulty appropriate for their current individual needs. Many elements in a classroom can be tiered-for example: learning centers, journal prompts, math problems, homework, products or projects, learning contracts, and tests. Tiering is a great approach whenever teachers realize they have students of varying readiness levels, but still need to work with all students on common learning goals much of the time.

Why Tiering?

Student readiness affects student learning. It's a simple truth that is difficult to address in the classroom. Any teacher who has taught more than half an hour has observed what happens to a student who can't keep up with the pace of work, complexity of explanations or directions, or who has gaps in knowledge that serve as barriers to growth. Similarly, the teacher has likely observed the boredom (and perhaps misbehavior) in students who are ready to move ahead with the subject when both the pace and complexity of the class is less advanced than is the learner.

Beyond what teachers observe in the classroom, psychologists recognize the impact of student readiness on learning from their classroom observations as well. They tell us that when tasks seem frequently out of reach to a student, the student becomes anxious, which, in turn negatively affects student motivation and achievement. Likewise, psychologists tell us that students who are bored in a class undergo a decline in motivation and achievement. Even when the latter group earns A's for work that is too easy, they are not really succeeding. That is, they are not growing, but rather "marching in place." They are likely to develop a certain disdain for the system that gives them fraudulent grades, at the same time they get addicted to easy A's.

Psychologists tell us that we teach best and students learn best when task difficulty is a match for learner readiness. The Russian psychologist Vygotsky echoes the findings of many others in his field when he tells us that people learn only when the work they do is in their "zone of proximal development." That is, we learn when the work is just a little too hard for us. If the work is way too difficult, we are frustrated. If the work is too easy for us, we function in an independent zone and do not extend our knowledge. Learning happens when a student understands much of what a task calls for, but has some uncertainly about how to accomplish the task. An effective task creates both the comfort and the uncertainty—and then provides a support system to bridge the gap.

More recently, brain researchers have examined activity in the brain as learners interact with learning tasks. Their conclusions echo the observations of both teachers and psychologists. Brain researchers also tell us that we learn only when we are moderately challenged. Again, we learn when tasks are a little too hard for us. When tasks are out of a student's reach, activity in the thinking part of the student's brain literally shuts down, and the student's energies turn to protecting himself or herself from harm or humiliation. When the work is too easy for a student, that learner also is not in a thinking mode, but rather shows the brain activity of early sleep. Therefore, say brain researchers, if we want students to learn, we must try to design learning experiences that are just in front of a student's knowledge, understanding, and skill.

The problem, of course, is that what is moderately challenging for some students in a class may well be too easy for some others, and too advanced for yet another group of learners in the same room. That's where tiering comes in. Tiering enables teachers to have students work on the same learning goals, but at degrees of complexity likely to match students' varied zones of proximal development.

What Does Tiering Look Like?

It's helpful to look at some snapshots of tiering in action. We'll take a look at four scenarios involving tiering.

Tiering in Kindergarten Math

Early in the year, students in Ms. Page's kindergarten class differ widely in their comfort with numbers and counting. They practice counting individually and as a class in many ways, many times a day. One way Ms. Page tries to deal with students' varying proficiency levels with counting is through a tiered learning center on counting. There are four color-coded tasks at the center. Students find their name on a chart to learn which color task they will complete during a given day. The simplest task asks students to count a small number of items in a box and a small number of items on a poster. Students record an answer

and tell whether there were more items in the box or on the poster.

At a slightly greater degree of difficulty, students are asked to count larger numbers of items in a box and on a poster and to draw which had the larger number of items and which had the smaller number of items. At a somewhat more advanced level, students are asked to adjust the contents of a box of items so that it contains the same number of items as a poster depicting the same items. They also tell what someone should do to make any set of items bigger and smaller than another set of items. At a still more advanced level, students not only work with a much larger number of items in the box and on the poster, but also show many ways to make the box of items bigger and smaller than the poster of items.

Over time, Ms. Page changes the items in the boxes and on the posters, changes the number of items, changes the directions, and moves students among the tasks as they grow in their competency with counting. She may also vary the number of tasks at the counting center. She continues to use tiering, however, to ensure that all students can practice counting independently on tasks that are appropriately geared to their current learning needs.

Tiering in Fourth Grade Social Studies.

Mr. Larsen is working with his fourth graders on using latitude and longitude to locate places on a map and make predictions about the nature of the places based on their latitude and longitude. Some students are familiar with the concepts as the unit begins. Others catch on quickly. For some students, however, the concepts are abstract and murky. Mr. Larsen knows this from observing the students as they work in class, from classroom discussions, and from students' written work.

Today, he will ask students to complete a tiered task on latitude and longitude. It's designed to help each student stretch his or her current understanding and skill related to latitude and longitude just a bit. Some students will be given maps with latitude and longitude labeled. The map also contains names of several places students should know about from earlier studies. Students will also be given names of several cities along with their latitudes and longitudes. Students will locate the new places accurately on the map, and use their relationship to familiar places to make predictions about temperature, weather, language, food sources, and occupation of the less familiar places. Finally, students will be asked to explain how they arrived at their conclusions.

Students more comfortable with the concepts of latitude and longitude will be given names of obscure locations, with no latitude and longitude provided. They will need to find out the missing data and use it to locate the places on the map. These students will then need to determine more familiar places that are relatively near the new places, locate them on the map accurately, and create a chart that makes predictions about climate, culture, economy, and leisure activities in those places based on what they know about the familiar locations they selected as points of comparison.

They will also need to justify their comparisons. Both groups have the same essential task, but the degree of difficulty, or complexity of the tasks, varies to match the current readiness of students to deal with the central concepts and skills of the lesson.

Tiering in Middle School Literature

In her eighth grade literature class, Ms. Leandra is working with her students on abstracting themes from poems. That is a very abstract concept, and is difficult for some students, but relatively natural for others. The teacher has developed a tiered task to help all students progress in their comfort with identifying themes in poetry. The lesson was a quick and easy one for her to create. She decided to work with four levels of difficulty. All students will need to read a poem, develop a statement that suggests both a theme for the poem and an explanation of how the student arrived at his or her conclusion about the theme.

To make the task a match for the students, she selected four different poems for analysis. Some of the poems deal with more concrete and familiar topics, have accompanying pictures that provide clues about the poem's meanings, are categorized in the book in ways that suggest themes, and so on. Some of the poems are more abstract, may deal with more complex topics, may have more complex vocabulary and/or allusions, are not illustrated, and so on. All students will analyze a poem for theme and be prepared to explain how they approached the analysis, so the teacher can conduct a whole class discussion on that topic. The actual task, however, is more likely to be appropriately challenging for more students than if all students had interpreted the same poem at this point in their learning.

Tiering in Twelfth Grade Government.

Ms. Weingartener and her high school government students are exploring the elasticity of the U.S. Constitution. Right now, they are looking at the evolving way in which the document has been interpreted as times change in order to grant freedoms and protections to a wider group of citizens. The class will have a seminar on Friday in which students will be prepared to support or refute the premise that the Constitution was written so it could evolve with an evolving society. Specifically, students will illustrate their positions with evidence related to rights for minorities, women, and young people under the 14th Amendment.

In this school, there are more materials available at a more basic readability level on rights for women and African Americans. In addition, students generally are more familiar with issues surrounding these populations. Thus some groups will select one of these groups to study in preparation for the seminar. Reading material on more recent immigrant groups and on rights for young people are generally more complex, and, in addition, students are less likely to be familiar with issues surrounding rights for these populations.

More advanced groups will select from these less familiar populations for their preparation. All students will have a guide for their research that suggests ways of proceeding efficiently and key questions for inquiry. All students will contribute to the seminar and wrap-up discussion that follows. However, matching topics and resources to student readiness is likely to prompt both more success and more engagement for students in the class than had they all worked with the same resources and target topics.

Conclusion

The idea of tiering is not so difficult, and it can go a long way in alleviating the frustration of teachers and students alike when common learning goals are in place for students whose readiness for those goals is diverse.

For advanced learners, tiering is a message that learning should be challenging, that success should be earned, and that continued growth in school is non-negotiable. All those things serve advanced learners far better than do automatic A's on work that calls for little new knowledge, skill, or understanding, in a setting that implies that once a student achieves the norm, they can coast.

Remember when you plan tiering, the goal of a tiered lesson is not to create two, three, four, or five totally different tasks. Rather, it is to create several versions of essentially the same task at varied degrees of difficulty. Especially when combined with small group teaching, effective tiering can boost the engagement, motivation, and achievement of far more students in a classroom.

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DO GIFTED AND TALENTED YOUTH GET COUNSELING, MODELS, AND MENTORS TO MOTIVATE THEM TO STRIVE FOR EXPERTISE AND CREATIVE ACHIEVEMENT?

By John F. Feldhusen

Here is the bio of one highly gifted youth who achieved at a very high level. As we read it we may ask how a gifted and talented (GT) program might have tied in, supported, augmented, or enhanced his career development. Or could it have had a negative effect?

Andrew is a psychological researcher at a major U.S. university where he specializes in a major area of psychological research. (Actually this biographical picture of Andrew is a synthesis and composite portrait of several people whom I will refer to as an individual). He is widely recognized as a leader in his specialty as well as in the field of psychology in general. He has been highly successful in getting grants from both federal funding sources and from private foundations. He regularly supports 6 to 10 graduate students, several technicians, and two secretarial-clerical workers in relatively spacious facilities. He is a Fellow of the American Psychological Association. His research is published in leading technical journals, and he is the author of two books. He has broken new ground in his area of specialization.

The major signs of precocity or talent that Andrew displayed in childhood, in addition to generally high intelligence, were verbal and linguistic. He learned to talk and to read much earlier than most children. He loved books as a child, and he was considered socially gregarious. Through the elementary, middle and high school years his grades and test scores were always excellent. He had good friends throughout his school years, but he continued to read a lot, he watched very little TV, and he excelled on writing tasks in high school. He took the Scholastic Aptitude Test in 7th grade and scored 680 on the verbal and 590 on the quantitative scale. When he neared high school graduation he took the SAT again and scored 800 verbal and 710 quantitative. He was admitted to one of the best Ivy League schools for his baccalaureate studies. In his sophomore year he took his first psychology course and was almost immediately hooked on psychology as a domain of study.

Andrew is clearly an expert in his domain of research, and he is one of the top 20 people in the field of psychology (Csikszentmihalyi, 1997). His achievements are in the realm of "greatness" (Simonton, 1994), although we would not

describe him as eminent yet. That may come later if his creative work comes to be seen as a major breakthrough in the field of psychology. So once again we ask the question, "What interactive combination of genetic endowments, environmental influences and resources, and people produces the expert, the creative achiever, or the eminent individual?"

Andrew started life by selecting his parents wisely to enhance his potential for high intelligence (Plomin, 1997). His father was a research chemist and his mother a professional writer. Both devoted much time and attention to Andrew, talking to him about his childhood activities, reading to him, and constantly encouraging exploration and attention to the world around him. The family traveled a lot and both mother and father attended professional meetings and often took Andrew along. However, Andrew lamented the fact that his father was away on professional travel so much or so busily engaged in work at his laboratory that he often had little time to share with Andrew. Later during childhood and adolescence Andrew met and interacted with his parents' professional friends. Two of the friends were psychologists.

Andrew attended excellent suburban public schools and was identified for special gifted classes in the third grade. There he was surrounded by challenging peers, many of whom became his close friends. In high school he enrolled in at least one or more honors or Advanced Placement courses every semester. He starred on the high school tennis team and participated in debate. He dated quite often but never had a "steady."

Several of Andrew's high school teachers recognized his talents and tried to get him interested in their disciplines. The counselors also noted his exceptional ability, motivation, and achievement and urged him to think about entering an Ivy League school. Andrew graduated number nine in a graduating class of 189 seniors. As noted earlier he scored 800 on the Scholastic Aptitude Test given to graduating seniors. He had decided to go and was admitted to an Ivy League university.

Andrew's university career was marked by steadily increasing interest in psychology after taking the introductory course in his sophomore year. Subsequent psychology courses introduced him to professors who modeled high level knowledge and creative activity in psychology, and, through avid reading in the field of psychology, he began to develop the massive knowledge base that would later characterize his role in his area of specialization in psychology. In his senior year he was selected to work with a professor of psychology on a research project in what became for him a true mentoring experience. Andrew was particularly amazed at the intensity of the professor's motivation and devotion to his project ("flow" as described by Csikszentmihalyi, 1997). The professor was greatly impressed with Andrew's work on and contributions to the project and urged him to enroll for graduate study. For a variety of reasons, some fortuitous, Andrew ended up at a major west coast university and began graduate study that would lead to a Ph.D. and career as a psychologist who would do creative research and theory development.

Andrew's motivations and specifically his setting of specific goals concerning what he hoped to achieve from stage to stage in his life were surely major factors in his achievements. He exhibited a high degree of independence and capacity for self-direction throughout his adolescent and young adult years as well as remarkable tenacity and perseverance in pursuit of questions and/or problems in psychology. His regular appearance as a presenter of papers at major psychological conferences early in his career, his graduation to the role of symposiast in theory-oriented sessions, and still later as major presenter at conferences, all attested to his rising star as a leader in his field and brought him into a world of peers in the field of psychology many of whom were at the cutting edge of creative developments.

There probably were many other factors that contributed to Andrew's creative achievements (Simonton, 1994). His family was patient when he spent long hours at work at the university and in his study at home; they also learned to cope with his absence when he was traveling to conferences, consulting, and off on another quest for grant money. His wife, an active and practicing professional herself, took major responsibility for the rearing of their two children (a boy and a girl) and was a loving and supportive partner throughout their lives. Andrew was also able to discuss his research, theorizing, and other professional activities with his wife and to derive insights from her about his work.

There were the several professors who recognized his talents and played mentor roles in his life. There was quite good health, massive amounts of energy, and good social skills that often helped in dealings with colleagues at the university and the quest for dollars to support his research. There was also the great good fortune to be working in an area of specialization at a time when it was ascending as a major new direction in the field of psychology.

Perhaps above all there was self determination, independence, drive, and commitment, along with a lifelong sense of curiosity and enthusiasm to confront problems, solve them, and understand phenomena better (Csikszentmihalyi, 1990). Andrew set achievement goals and pursued them vigorously, often successfully. Thus, he was also reinforced in his quest for creative achievements. And finally chance often seemed to place Andrew at the right place and right time so that he could take advantage of new opportunities in his field, for which he was indeed well prepared, to be sure (Feldhusen, 2000).

Summary

Andrew is a composite picture of several people who are high level, creative achievers in psychology. We are well aware, however, that the combination of environmental resources and experiences enjoyed by Andrew do not inevitably lead to high level creative achievement or expertise (Csikszentmihalyi, 1997). Many other individuals will settle for far more limited goals and for far lesser achievements and will exhibit little or no creative accomplishment. Those individuals and educators who seek guidance, may take heart, however, in knowing that biographical and observational studies confirm the presence of many factors found here in this biographical sketch of Andrew (Bloom, 1985; Csikszentmihalyi, Rathunde, and

Whalen, 1993; Gardner, 1993).

Now, gifted programs seem to operate in the realm of expertise, creative achievement, and genius, since they often cite the high level achievements of Einstein, Edison, Jefferson, et al., as rationales for GT programs. Yet there is little evidence that counselors or GT teachers guide gifted and talented youth to study the lives of eminent or creative achievers. Do GT teachers know much about the new burgeoning field of research and theory on expertise and how creative expertise is achieved (Ericsson, 1996)? Are they aware of the great amount of research and development on the role of models and mentors in the lives of youth (Bandura, 1986; Schunk, 1996)? Are they introduced to the growing literature on how creative achievement and productivity emerge in the lives of highly able youth and young adults (Feldhusen, 1999)?

Surely acceleration and radical acceleration complement the processes of growth toward high level achievement by helping GT youth test their mettle in highly challenging learning situations. Some of our own research (Feldhusen & Kroll, 1991) suggests that boredom in school may be a serious problem for many GT youth. Fortunately there are now many programs and efforts to overcome that lack of challenge by grade skipping and early admission to college. Such programs offer GT youth opportunities to experience cognitive challenges at relatively high levels as would be expected later if they go on to high level expertise, research, or creative achievement.

Arrangements for meetings with models of expertise and high level creative achievement can also be of immense value to GT youth (Bandura, 1986; Schunk, 1996; Albert, 1990). They plant the ideational seeds or goals for high level achievement by serving as inspirational and motivating models of such achievement. In substantial contact with models and mentors, GT youth can get a clearer picture of the nature of a high level career in a particular field as well as the accompanying lifestyle in the career.

Counselors and GT teachers can support the career development process in a number of ways. Perhaps one beginning is contact with GT youths' parents to learn about the possible models available in the family and the parents' ambitions for their sons or daughters. Another is to provide print and other media sources of information about high level careers. Biographies of high level achievers may be a major source of such information. Yet another and major line of support is to provide information about the best educational routes to high level achievement. In a dozen U.S. states it may in part be by enrollment in the state's high school academy (Feldhusen & Boggess, 2000). Later it may be by selecting the best colleges and/or universities. Counselors and GT teachers should provide the information and counsel to GT youth and their parents to help them make the best selections if the goal is a career in a field in which expertise and/or high level creative achievement is possible.

It probably is easy in GT programs to get bogged down in daily focus on thinking skills, projects, and independent study and to forget about long-term goals. We have advocated one form of short and long-term planning for GT youth called "Growth Plans" (Feldhusen & Wood, 1997). At least once a year they ought to review and note their major achievements to date (Kay, 1999) and develop both short and long-term goals in the areas of personal, social, educational, and career development. The latter two, career and educational goals, engage GT youth and their parents in explicit thought about short-term goals as they link to long-term educational and career achievements. We were pleased recently to work with a group of seventh and eighth grade GT youth who had set long-term goals that included a Ph.D. and careers in science, mathematics, English literature, and political science as well as professorships in major universities.

Are your GT students getting these services to help them set the high level career goals associated with expertise, creative achievement, world class recognition (Bloom, 1985)? Are they showing the signs of movement toward such achievement as early as middle school (Csikszentmihalyi, Rathunde, & Whalen, 1993)? Ponder these questions as you review the current status and future direction of your GT programs.

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BIOGRAPHY IS THE PEOPLE SUBJECT

By Jerry Flack

Part One: The Merits of Biography

Biography is the people subject. Educators speak and write of the three R's: reading, writing, and arithmetic. Biography may be most fully appreciated through reference to its five R's: reading, reflecting, responding, researching, and writing.

Reading is the first R. There is no discipline taught in today's schools that cannot be supplemented, extended and enriched for gifted readers through the adroit use of biography. Art can be extended when gifted students read biographies of Georgia O'Keeffe and Faith Ringgold. Science can be enriched as gifted students read about the lives of Marie Curie and Elijah McCoy. Biographies of Wilma Rudolph and Tiger Woods can make physical education a more rewarding experience. Memoirs by writers such as Yoshiko Uchida extend language arts experiences for gifted readers. Yoshiko Uchida could well write about the experiences of Americans of Japanese ancestry in internment camps during World War II in her children's book *The Bracelet* (New York: Philomel, 1993) because she experienced the internment herself as she relates in her memoir *The Invisible Thread* (New York: Julian Messner, 1991). Two fine biographies for English classrooms are Anthony Holden's visually stunning *William Shakespeare: An Illustrated Biography* (Boston: Little, Brown, 2002) and Michael Rosen's *Shakespeare: His Work and His World* (Cambridge, MA: Candlewick Press, 2001). Math students can witness the courage and productivity of Benjamin Banneker in biographies such as Andrea Davis Pinkney's *Dear Benjamin Banneker* (San Diego: Harcourt Brace, 1994) and Bonnie Hinman's *Benjamin Banneker: American Mathematician and Astronomer* (Philadelphia: Chelsea House, 2000). In a music class, biography may be sampled in individual biographies such as Julia Downing's *Mozart Tonight* (New York: Bradbury Press, 1991), or students may read from collective biographies such as Kathleen Krull's delightful *Lives of the Musicians: Good Times, Bad Times and What the Neighbors Thought* (San Diego: Harcourt Brace Jovanovich, 1993). Biographies not only extend the curriculum for gifted students, they also introduce students to the finest exemplars of talent within respective disciplines.

Biographies for students today come in many packages. The diversity of biographical materials that exist can be seen in the many portraits of Chicago's heroic aviation pioneer Bessie Coleman. A full-length chapter biography is found in Philip S. Hart's *Up in the Air: The Story of Bessie Coleman* (Minneapolis, MN: Carolrhoda Books, 1996). Educators and parents can introduce younger readers to Coleman through picture book biographies such as Reeve Lindbergh's (daughter of aviator Charles A. Lindbergh) *Nobody Owns the Sky: The Story of "Brave Bessie" Coleman* (Cambridge, MA: Candlewick Press, 1996) and *Talkin' About Bessie: The Story of Aviator Elizabeth Colemen* (New York: Orchard Books, 2002) written by Nikki Grimes and illustrated by E. B. Lewis. Bessie Coleman's story is revealed in at least two collective biographies of women and African-American pilots: Margo McLoone's *Women Explorers of the Air* (Mankato, MN: Capstone Press, 1999), and Stanley P. Jones' *African-American Aviators* (Mankato, MN: Capstone Press, 1998).

Additional outstanding new biographies, autobiographies, and biography collections are shared in the final section of this article.

The second biography "R" is Reflection. Reflection occurs as students begin to identify with other people and find such lives both inspiring and illuminating. Identification occurs when readers see parts of themselves through the perspectives of other people's life experiences. They identify with similar passions, joys, experiences, as well as understandable disabilities or limitations. Eleanor Roosevelt was gifted, but she was also very shy and reserved. Moreover, she had a squeaky, unattractive speaking voice. But, she did not surrender to the comfortable pathway of avoiding what she knew she must do. Gifted students identify with people who are not perfect! They also identify with people who conquer fears and do the right thing.

Franklin D. Roosevelt had a near compulsion about always being first. He needed to be first in everything he did. Many gifted students can identify with the fiercely competitive desire or need to always win and to be first in every race or competition. One of FDR's contemporaries, Harry Truman, was a very gifted young man who loved to read. He read virtually every book in his boyhood hometown library, but he also desperately wanted to be "one of the boys" so he had to learn how to balance the

intellectual and the athletic sides of his nature. That is yet another situation many gifted youths today face.

Inspiration occurs when students reflect upon the lives of people who persevere even when the events in a life seem unfair, even catastrophic. Helen Keller is a particularly inspiring figure. Despite terrible limitations in her life, Helen Keller still championed optimism. She said, "No pessimist ever discovered the secrets of the stars, or sailed to an uncharted land, or opened a new heaven to the human spirit." Marian Anderson is another inspirational figure. Despite being gifted and radiantly talented, she was prevented from graduating from high school until the age of twenty-four because of the twin barricades of prejudice and poverty.

Biographies can also illuminate the lives of young readers as they learn not just about individuals but the geography, cultures, and careers that form the context of the lives of biographical subjects. Biographies about Ansel Adams, Margaret Bourke-White, and Dorothea Lange introduce students to the world of photography as well as the times in which these people worked in America. Similarly, students reading biographies of Frank Lloyd Wright and Frank O. Gehry learn about architecture as well as the lives of two remarkable men.

Biography's third "R" is Responding. There are countless ways that students can respond to biographies and they span all the domains of learning. Consider, for example, the six levels found in cognitive domain of Bloom's Taxonomy (Bloom, 1977): knowledge, comprehension, application, analysis, synthesis and evaluation. Students build a knowledge base about the facts of subjects' lives and comprehend how positive attributes such as creativity and a strong work ethic contribute to success in a person's life. The newfound wisdom pays off as students apply the new knowledge to their own lives. Students may also analyze skills and attributes needed to succeed in particular fields or endeavors. Students can be extraordinarily creative in the limitless ways they synthesize media, ideas, and invention to fashion original biographical projects. They may also evaluate connections between individuals and their times. Abraham Lincoln could not have invented television because electricity had not yet been invented, but it is impossible to consider any aspect of the Civil War without immediately thinking of Lincoln, the greatest president in American history.

The affective or feelings domain of learning can be tapped when students analyze the behavior and decisions of biographical subjects using tools such as Kohlberg's moral development scale (Gilligan, 1982). Students may also examine the motives of biographers in their treatment of subjects. Is it difficult for a biographer to remain objective in telling a life story? Does a biographer owe her loyalty to the subject or to readers?

The psychomotor domain is a natural for physical responses to biography. Students can dress as famous people and dramatize peak moments in the lives of Nobel scientists such as Marie Curie and Barbara McClintock. Students can build hand-made compasses when they read about great ocean explorers. They can build models of airplanes similar to the craft flown by Amelia Earhart and Charles A. Lindbergh, or construct a miniature printing press to celebrate Johannes Gutenberg's invention of moveable type. They can replicate a science experiment patterned after one they have discovered by reading a biography of Luther Burbank.

All the domains of learning can be combined when students create original reading materials intended for others. For example, one of the author's former sixth grade students greatly enjoyed reading about Henry Ford and his role in the creation of the automobile industry in the United States. The student researched the life of Ford and then wrote his own humorous story that he modeled after Robert Lawson's delightful fictional biography *Ben and Me: An Astonishing Life of Benjamin Franklin as Written by His Good Mouse Amos* (Boston: Little, Brown, 1988). In Lawson's story, a mouse named Amos admits to being the real brains and power behind Benjamin Franklin's many accomplishments. In the student's imaginative response to both reading biographies of Ford and Lawson's imaginative work, Clyde, a lizard, emerged who was Ford's pal, coincidentally was also the true inventor of the automobile and the assembly line.

The fourth "R" is Research. One of the virtues of many of the biographers for youth today is that they provide outstanding models of scholarly behavior. Biographers such as Russell Freedman, Albert Marrin, Jan Greenberg and Sandra Jordan, and David A. Adler share footnotes, bibliographies, timelines, and other forms of documentation that allow students to see how the craft of biography is conducted. Students can engage in real, first-hand inquiries using primary resources when they research and write biographies of family members. Today, the Internet is a tremendous resource as student choose, evaluate, and utilize hundreds of sites devoted to scholarly study of figures such as Martha Graham, Dr. Martin Luther King, Jr., and Georgia O'Keeffe.

Here is one stimulating way to combine biography and research in a gifted classroom. Select a critical era (e.g., 1960's; World War II; American Revolution) and, with the assistance of the library media specialist, create a representative list of biographies of people who made a significant difference during the chosen time frame in a wide variety of professions, life styles, or service. The latter categories might include: artist, athlete, entrepreneur, scientist, environmentalist, entertainer, writer, statesperson, and musician.

Ask students to select one of the biographical subjects listed and read at least one biography of the subject's life. From their readings, ask students to determine the background of each subject, and to relate examples of the subject's career or works. Especially, ask students to note how their subjects reflect life, attitudes, and beliefs of the chosen era. How did he or she influence the times? In what ways was he or she, in turn, influenced by the era? Good biographies usually provide clues to the context of the times in which their subjects lived. Not all biographies are equally good in this respect; students may need to consult histories to determine aspects of the chosen time period such as the roles and rights of women and minorities, educational practices, human rights, fads and styles, transportation, political climate and economics.

The fifth "R" is Writing. There are myriad writing possibilities that range from students writing critical reviews of biographies to creating their own autobiographies to creating odes to salute heroes. As a rule of thumb, always ask students to respond to biographical readings. Students who are not asked to respond to what they read are unlikely to reflect about what they have read, and one of the easiest ways to respond is to write. A

host of activities to accompany biography studies follows in the next section of this article; a few quick, easy, and painless writing prompts are shared here.

- Write 5 questions you would like to ask your subject
- Write a list of your subject's 5 best qualities
- Write a short obituary for your subject, if he/she is deceased
- Describe the pet you are going to give your subject
- Describe a vacation site (Disney World) your subject would like
- Write a recipe for the best cookie you would give to your subject
- Write to the President nominating your subject for the Presidential Medal of Freedom
- What is the greatest reason your subject should visit Illinois

Part Two: Biography Project Ideas

The biography project ideas presented here may be used in small learning groups, in whole class activities, and by individual students. There are infinite ways gifted students can respond to biography. Part of the fun is allowing students to come up with their creative project ideas, but it also helps students when teachers provide some imaginative suggestions. The following biography project ideas address both the different ages and learning styles of students. Teachers are certainly encouraged to create their own project ideas or to adapt these possibilities to fit the needs of individual classrooms.

1. Letters to Sons and Daughters. One creative way that students can respond to biography is by writing imaginary letters famous men and women might have written to their sons, daughters, or other relatives about momentous happenings in their lives. What might Abraham Lincoln have written to his son Robert about his feelings upon on the eve of delivering the Gettysburg Address? It is a chilly, fateful day, December 1, 1955, in the life of Rosa Parks. On that day in Montgomery, Alabama, she refuses to give up her seat on a city bus to a white person. Her arrest precipitates the Montgomery Bus Boycott by African-American. The Civil Rights' Era is born. Ask students to draft a letter that Rosa Parks might have written to her niece reflecting upon the events of that day. Letters constitute one way of asking students to find the "main ideas" in the lives of eminent people. Writing a letter may help students grasp the significance of turning points in the lives of biography subjects.

2. Penny Timelines. David A. Adler's many picture book biographies such as *A Picture Book of Dwight David Eisenhower* (New York: Holiday House, 2002), provide readers with timelines ("Important Dates") of the significant events in the lives of the biography subjects. Model the way timelines are created. Talk about the significant dates in Eleanor Roosevelt's life in sequence, marking the years and events on the board or overhead. As a take-home assignment, ask students to collect pennies for each year they have been alive. Instruct children to talk with their parents or guardians about significant things that happened to them in each year of their lives. Have the students bring the pennies to school. Give them paper and have them place the pennies under the paper and make rubbings of the pennies with lead pencils. Place the date of birth beside (or underneath each penny) the first penny, and label all the remaining pennies with the succeeding years of their lives. Beside or under each penny or year of their lives, have students recall and draw events from each of the years of their lives.

3. Cinquainography. A cinquain is a short five-line poem, often about nature. But, the easy structure can be adapted to biography or even student autobiography. Students can use the universal format to write about presidents, inventors, athletes, or even themselves. Here below is the format and a sample Abraham Lincoln cinquain.

   - 1st line....first name of person
   - 2nd line...two words associated with the person
   - 3rd line...three participles or "ing" words describing the person
   - 4th line...four more "ing" words celebrating different virtues, characteristics
   - 5th line...last name or nickname of subject

   (Sample)
   Abraham
   American President
   Rail splitting, wrestling, reading
   Lawmaking, debating, presiding, emancipating
   Lincoln

4. Biographical Maps. Invite students to create maps representing the lives of biographical subjects' lives. A map can literally be a geographical map on which the students note the specific routes taken by the subject during his or her lifetime. The end pages of Ingri and Edgar Parin D'Aulaire's *Abraham Lincoln* (New York: Doubleday, 1939), for example, show a geographical map of Lincoln's lifetime travels in America. Studies of the lives of adventurers and discoverers such as Amelia Earhart and Christopher Columbus particularly lend themselves to map-making activities. However, this is not the only type of map that students may create. Perhaps they can create a State of Self-Awareness map, autobiographical in nature, which features character traits as landmarks. Would a Lewis and Clark map have Rivers of Discovery, Mountains of Opportunity, and a Courage Divide? Encourage students to literally break boundaries and to really use their creativity in the kinds of "maps" they create to illustrate highlights in the lives of their chosen biographical subjects. A variation of this idea is to ask students to construct passports for biographical subjects. Each passport should include vital statistics about the subject and student-designed stamps to indicate the nations or regions or locales the subject visited in his or her lifetime. What might a passport for Tiger Woods look like? What are the sites of his greatest triumphs? If the biographical subject is living,

the passport can predict future destinations for him or her.

5. Biography Letters. Ask students to adopt the character of the subject about whom they have read. Encourage them to find a contemporary of the subject. For example, Benjamin Franklin and Thomas Jefferson were contemporaries just as Amelia Earhart and Georgia O'Keeffe were contemporaries. Students, writing on behalf of their biographical subject can compose a series of letter or even email communiqués to another famous person who is or was a contemporary. What might Amelia Earhart have written to Georgia O'Keeffe about her art, and what might Miss O'Keeffe have written back to Earhart about her aviation triumphs? In order to write the response letters, students will expand their learning curves by securing knowledge about a second contemporaneous subject.

6. Expert Critics. Encourage gifted students to read biographies of persons involved in sports they play, person who play the same musical instruments, or who practice arts and crafts they enjoy. Based on their prior knowledge of the sport, instrument, or activity, ask students to assesses the accuracy of biographers' presentation of the sport, instrument, or art outlined in the biography. For example, how well is basketball explained and described in a Michael Jordan biography?

7. Mystery Trunk Antiques. Tell students that they have made the biographical discovery of the century! They have unearthed an old trunk that belonged to _____, who by coincidence, is the subject of a biography that they have just read. Encourage them to create a drawing of the trunk and the five or more items found in the trunk that yield new and fresh insights into the kind of person the subject was.

8. Homes for the Famous. Ask students to read a biography about a person who lived in another century and then follow the reading by researching the architecture of the time period in which the subject lived. Ask them to imagine being an architect who has been commissioned to design a home for this "client." Students should base the interior and exterior sketches to fit both the architecture of the time period and the personality of the subject. Mark Twain and Thomas Jefferson are both famous men who lived in special houses. What can students learn about their particular homes.

9. Get Acquainted. Encourage students to correspond with a biographer whose work they have read and admired. The library media specialist can help you find the address of the publisher who will forward your letter to the biographer. Also, many authors today have personal web sites they encourage students to visit. A simple Internet search for the author's name may score results. Have students ask the biographer why he chose to write about _____. What kinds of research and travel were needed as preparation for writing the biography? How did the biographer acquire authentic information? What does the biographer most admire about his or her famous subject? Today, students cannot only construct a profile of a biographical subject, but about a biographer as well.

10. Making the Greatest Speech. Ask student to imagine that they are Abraham Lincoln, Napoleon, Helen Keller, Queen Elizabeth I, Dr. Martin Luther King, Jr., or any other eminent person, past or present. Each has been asked to deliver a speech to the world that is THE speech for which he or she will be most remembered. What are three to five points to be made in the speech? Encourage students to write the speech and deliver it to the world (or at least to classmates).

11. Class Cartographers. Have one or more students locate or create a single map of the nation or the world. Decide as a class what objects (pins, stickers, flags) will be used notes places of great significance in the lives of persons about whom all students are reading. Significant places may include birthplaces and travels of biographical subjects as well as battlefields, discovery sites, or any other places where the people about whom students are reading made history. Incidentally, another helpful visual tool to construct in the classroom while a biography unit is ongoing is a continuous timeline. What great people were living in the same eras? What discoveries and inventions occurred simultaneously? How did a single world war impact the lives of great people across the globe?

12. Biography "Secret" Collages. Invite students to create collages utilizing any types of materials that reveal some of the physical and personal traits and characteristics of their biographical subjects. Students do NOT place the name or a photo or drawing of their subjects anywhere on the collages themselves. The name of the subject is listed on the back of each student's artwork. The collages are exhibited around the room and the classroom becomes an instant biography museum. The classmates (and their guests to the biography classroom) have to determine who the biographical subjects are based on the visual and word clues found in the collages. This activity is a fine culminating biography project for all.

Part Three: Biography Resources

Rosen, Michael. *Shakespeare: His Work and His World.* Illustrated by Robert Ingpen. Cambridge, MA: Candlewick Press, 2001.

Rosen's parents raised him on Shakespeare and his direct goal here is to pass on the favor to a new generation of young people. There are countless biographies about the greatest writer in the English language and this work grandly adds to the bounty of Bard biographies. The text is highly informative and very easy to read. It is superbly enhanced by the liberal use of pertinent quotations from Shakespeare's play. The key areas of Rosen covers are the Elizabethan times in which Shakespeare lived, his early education and life in Stratford, his move to London, and his

beginnings as a playwright. The background of London in the era of Shakespeare and the Globe Theater is richly portrayed in words and images. Several of Shakespeare's greatest plays such as Romeo and Juliet, Macbeth, and King Lear are described and analyzed. Readers also look at Shakespeare in death, through an analysis of his last will and the grand scope of his lasting impact upon the English language. Words such as "leapfrog" and "excellent" are but two of the many words Shakespeare invented. An illustrated timeline will aide students in keeping straight the facts of Shakespeare's life and the Elizabethan Age.

The salient facts are all in this biography and their value is heightened by an informative and enjoyable writing style. The pleasure of reading is made all the greater thanks to Ingpen's outstanding pencil and watercolor illustrations. Ingpen is one of the most decorated illustrators of children's books in the world, having won the prestigious Hans Christian Anderson Medal for his life works. His bold, colorful paintings have exactly the right dramatic flare to illustrate Shakespeare's great plays, and many of his golden, burnished drawings successfully convey the expanse of time that lies between Shakespeare's England and today's schools, malls, and suburbs. Ingpen's art creates a travel brochure for middle readers that transport them across both space and time. Students who have seen the film "Shakespeare in Love" will feel right at home in this biography.

Wooldridge, Connie Nordhielm. *When Esther Morris Headed West: Women, Wyoming, and the Right to Vote.* Illustrated by Jacqueline Rogers. New York: Holiday House, 2001.

Many biographical subjects are famous for singular events or accomplishments in their lives. Rosa Parks refused to surrender her seat on a segregated bus and Katharine Lee Bates composed "America The Beautiful." Such is the case of Esther Morris. She was 55 years old when she headed west to the gold rush community of South Pass City in the Wyoming Territory in 1869. South Pass City was never to become famous for golden nuggets, but it served as the world's birthplace of something far greater in worth: women's suffrage. Urged on by Esther Morris, Colonel William Bright proposed to the all-male Wyoming Territory Council that women should have the right to vote and the right to hold office. With Bright's leadership— spurred on by Morris' determination — the Wyoming legislature in 1869 made its women the first women in the world to have the right to vote and hold office equally with men. In protest the justice of the peace in South Pass City resigned and his judgeship was opened. Esther Morris applied for the job and was the only qualified candidate. She became the first woman in United States history to hold public office. On September 6, 1870 Judge Morris cast her first vote. She asked her personal physician to attend the event and record that voting in no way had ill effects on a woman's health. In time, South Pass City faded away and Esther Morris spent her remaining years in Laramie, Wyoming. She was nearly 90 when she died.

It would take 50 years after she first voted before the United States Constitution would be changed in 1920 to extend the vote to women. Because of Esther Morris, Wyoming is today nicknamed "The Equality State." In Statuary Hall of the United States Capitol Building in Washington, DC, 49 statues of men represent 49 great women. Among them is one great woman. Wyoming's designated statue is a woman: Esther Morris.

This is an easy picture book biography. Wooldridge's text is appropriately spirited and lively, perfectly capturing the hustle-bustle pace of and of life on the frontier. Rogers' watercolor illustrations have a joyful exuberance that is also in keeping with stagecoach rides, booming gold towns, and frontier courtrooms. Intended for younger student audiences, this is nevertheless a joyful biography for middle school students as well. The biography stands as a tribute to vast impact on history one individual's courage and actions can have. Bravo for Esther Morris.

Greenberg, Jan and Sandra Jordan. *Frank O. Gehry: Outside In.* New York: Dorling Kindersley, 2000.

The Guggenheim Museum in Bilbao, Spain, one of the most dramatic buildings created in the late Twentieth Century represents the genius of Frank O. Gehry. This colorful biography, illustrated with dramatic photography, reveals the life of the architect who boasts: "Life is chaotic. Buildings should reflect it."

Gehry was born in Toronto, Canada into a family of Jewish immigrants from Poland. The fish that has become such a part of his sculptures first emerged for him as a potent symbol when as a young boy he accompanied his grandmother to market to buy a live carp she would use to make gefilte fish for Sabbath supper. After moving to Timmins, a small Canadian mining town, his father's business failed and the family had to move to Los Angeles in order to stay with relatives. Working hard, the future architect put himself through the University of Southern California and even had a ticket to study urban planning at Harvard. Classes in theory and statistics bored him endlessly and he dropped out of Harvard, but not before a fellow classmate introduced him to the architecture of Le Corbusier. The French architect's organic shapes and free flowing buildings awakened in Gehry an entirely new way of seeing art and architecture: "Man, there's another freedom out there, and that's the place I want to be." Soon he was off designing and building revolutionary structures, including rebuilding his own home. The neighbors howled and complained, but now, 20 years later, tour busses bring admirers of his work from around the world to see the once scorned home.

Greenberg and Jordan do a laudable job in revealing Gehry's architecture as well as his unique furniture and sculpture such as cardboard and bentwood chairs and fish lamps and sculptures. The remarkable Loyola University Law School campus in Los Angeles, and the Fred and Ginger building (so named because it reminds viewers of the 1930s movie dancers Fred Astaire and Ginger Rogers) in Prague, Czech Republic were but preludes to the dilemma that faced Gehry in Bilbao, Spain. There he was asked to save an entire city. Bilbao was financially doomed in 1990, when its city planners determined that only a great new museum could bring visitors from all over the world to the Basque city in northern Spain and reinvents its economy.

The Guggenheim Museum agreed to support the heroic effort and a worldwide competition was held to select an architect and a design. Gehry made use of the French-invented three-dimensional imaging computer program to design the

building and designated titanium, a silvery metal used for missiles, to be the covering for the structure. In 1997 the Bilbao Guggenheim Museum opened to worldwide acclaim. The hoped for half million visitors in the first year more than doubled. The designs proposed for the Walt Disney Concert Hall in Los Angeles, Chicago's Millennium Park Music Pavilion and Seattle's Experience Music Project are shown. A glossary of architectural terms, a bibliography, and a list of locations where Gerry's buildings may be viewed are provided. The photographs are superb. Large and colorful, they provide the grand images such dramatic buildings require. The text is lively and the authors succeed well in "getting into the mind of" their subject. Gifted students who love architecture will find this a stimulating beginning biography of a contemporary genius.

Berenstain, Stan, and Jan Berenstain. *Down a Sunny Dirt Road: An Autobiography. New York*: Random House, 2002.

Down a sunny dirt road lies Bear Country, a bucolic, joyful place that Stan and Jan Berenstain have lived, enraptured, for the past forty years. Jan Grant and Stanley Berenstain led remarkably similar lives as children and teens. They grew up in small, close families and enjoyed similar school experiences. They were the art directors of their respective high school yearbooks; both knew they wanted to be artists from earliest childhood. They met in their first year at Philadelphia Museum School of Industrial Art and promptly fell in love. World War II intervened while Stan became a medical illustrator for the Army and Jan took her turn at being Rosie the Riveter. Following the war the couple married, and soon had two sons, Leo and Michael.

Their burgeoning career with cartoons and magazine covers for Colliers, the *Saturday Evening Post, Ladies' Home Journal*, and other magazines rose to undreamed of heights. They sold 156 cartoons to national magazine in just their second year of artistic collaboration. They had a record six cartoons in a single issue of the *Saturday Evening Post*. The family orientation of their cartoons eventually reached the notice of Theodor "Dr. Seuss" Geisel who launched the Berenstain Bears in the Random House Beginner Books series of which he was president and editor-in-chief. The start was rocky but the couple eventually did complete the first bear book, The Big Honey Hunt (2962) to Geisel's delight and it was he who knighted their cartoon bruins as "The Berenstain Bears." The long association with First Time Books (a phrase and logo invented by Jan) has run through more than fifty Berenstain Bear books.

Stan and Jan have created more than 200 books altogether and the Berenstain Bears have been featured in television specials, McDonald's Happy Meals, and their adventures translated into more than fifty languages. A favorite photograph the couple has reveals a Chilean father reading a Berenstain Bears book to his child high in the Andes. A few years ago, middle school-age students began to write to the Berenstains requesting more advanced chapter books about the bear family. That was an opportunity for the couple to bring their two sons into their publishing phenomenon. Michael is an illustrator and Leo is a writer. Both collaborate with mother and father to open up the sunny dirt road of Bear Country to an entirely new audience and with sophisticated themes such as drugs and guns in schools and personal crushes.

There are many charms to be found in *Down a Sunny Dirt Road*. The Berenstains are natural storytellers with a breezy, unassuming manner of telling about their lives before and after they met. Both their individual stories and their collaboration are told with a sunny, good-natured bonhomie. It is impossible not to catch the buoyant good cheer of their recollections. Similarly, the many illustrations reveal both their talent development as children and mature adults. Young readers can also see how they merged not only their lives but also their art. The mostly watercolor illustrations greatly enhance the text. The colors and characters are filled with good cheer, delight, and will invoke both smiles and laugher. The early chapters most especially serve as fine models for both boys and girls to find a rhythm for telling their own life stories.

Rohmer, Harriet. *Just Like Me: Stories and Self-Portraits by Fourteen Artists*. San Francisco: Children's Book Press, 1997.

Rohmer, Harriet. *Our Ancestors: Stories and Pictures by Fourteen Artists*. San Francisco: Children's Book Press, 1999.

Feelings of pride of self and family are present on every page of two fine multicultural biographical resources for young. Harriet Rohmer who founded Children's Press more than 25 years ago so that children of color could open books and see themselves edited *Just Like Me and Our Ancestors*. In *Just Like Me* gifted artists from many diverse cultures create visual self-portraits accompanied by autobiographical word pictures. Carmen Lomas Garza, Mexican American, fashions a self-portrait that incorporates paper doll images that allow her to express both realities and fantasies of her childhood. JoeSam, an African-American artist, proclaims his love of the vibrant colors used by Third World Cultures and uses his palette as a reminder of a childhood playground memory of being whacked in the eye by a girl he had threatened to beat up after school. "I saw a lot of stars and colors, and to this day all my paintings have lots of color in them." George Littlechild of the Plains Cree Nation of Canada creates a self-portrait combining four different images of himself to represent his mixed-blood ancestry. His text underscores how at different times and in different moods his commingled racial ancestry surfaces making him a rainbow man, a man of many parts.

Many of the same fourteen artists from *Just Like Me* create stunning portraits of the biological—and in some cases, spiritual—ancestors in *Honoring Our Ancestors*. Steve Von Mason, an African American, creates a gorgeous painting that incorporates pictures of his great-great-great grandfather, Pharaoh Jackson Chesney, one of the first settlers in Knoxville, Tennessee; his uncle Jordan Douglass Chavis, Jr., the founder of the music department at Tennessee State University; and his father, Cornelius Grant Mason, Jr., a Black aviation pioneer. Helen Zughaib uses fabric designs to celebrate in word and picture her Lebanese grandmother who taught her how to sew and knit, but who also gave her a thirst for knowledge. "Put education in your heart, not boys!" her grandmother advised. With quilt-like art, Mira Reisberg venerates her spiritual as well as biological ancestors. The Jewish Australian artist honors three of her grandparents, who did not survive the Holocaust, but she also pays homage to Marc Chagall, Frida Kahlo, Albert Einstein, Gertrude Stein, and even Groucho Marx, all of who touched her life with their own courage, words, and pictures.

Despite the fact that these two Children's Book Press books are created from the art and words of fourteen diverse and uniquely gifted individuals, there is a surprising symmetry to be found in their pages. The colors and images flow together seamlessly and the messages resonate: life is an incredible experience to be celebrated, honored, and above all, cherished.

Adler, David A. *A Picture Book of Dwight David Eisenhower*. New York: Holiday House, 2002.

David Adler has created an enduring contribution to children's literature with his "A Picture Book of" series of which this biography of America's famous wartime general and peacetime president is the thirtieth entry. Adler describes Eisenhower's life from his October 14, 1890 birth in Denison, Texas through his boyhood in Abilene, Kansas and on to his years at West Point Military Academy, his career in the United States Army—including his heroic tenure as the Supreme Commander of the Allied Expeditionary Force that landed on the shores of France, June 6, 1944 that allowed the Allies to free German-occupied Europe and successfully defeat Hitler in 1945. Adler then shifts to Eisenhower's peaceful life as Columbia University President and as the 34th President of the USA. The biography is liberally illustrated with period photography of Eisenhower's robust boyhood and adult triumphs. Today's children who may have only a nodding familiarity with Ike will come away with a brand new awareness of a great man's path to major accomplishments. They also learn that his life was not all military medals and White House esteem. The event that Eisenhower later said was "the greatest disappointment and disaster in my life," was the untimely death in 1920 of his first son, Doud or "Icky," from scarlet fever at age three.

Adler's picture book biographies provide fine first steps in life stories for young readers, but older readers who want a first sampling of a biographical subject's life can also successfully use them. Adler models excellent research techniques, including the scholarly "Author Notes" he makes available. The time lines he provides in every book serve as excellent replicas for students to imitate. His text also can be used by older students as ready-made scripts for readers' theatre presentations of famous lives.

Ryan, Pam Munoz. *When Marian Sang*. Illustrated by Brian Selznick. New York: Scholastic, 2002.

Ryan and Selznick sparkled with their picture book biography of Amelia Earhart and Eleanor Roosevelt in 2000, and now return with a similar format and style for a biography of the incomparable contralto Marian Anderson. The text records highlights of Anderson's both in world appreciation for her great talent and in her struggle for civil rights as an African American. The latter is critical for although Miss Anderson's voice was mighty, she is probably best known today for the titanic battle raged in her honor with the Daughters of the American Revolution (DAR) who refused her permission to sing in their Washington, DC auditorium, Constitution Hall. First Lady Eleanor Roosevelt promptly resigned from the DAR and used her influence to secure the Lincoln Memorial for Miss Anderson's Easter Sunday concert. Marian's triumph at the Metropolitan Opera in New York is yet another heroic chapter in this woman's life. Ryan's text is substantial, but she provides consider additional information about Anderson's life in an after word. She also liberally sprinkles the text with lyrics from famed African-American spirituals. Selznick engaged in much historical research to be able to render his sepia tone illustrations perfectly. When Marian Sang is a biography just made for reading and provocative discussions that will follow.

For children today it is impossible to understand the pervasiveness and pernicious effect of racism in the era of Marian's youth. Due to both prejudice and poverty, she was not able to graduate from high school until age twenty-four. When she performed as a young woman, she would most often have to travel in Jim Crow train cars and perform twice-once to an exclusively white audience and then again to a black audience.

Roosevelt, David B. *Grandmere: A Personal History of Eleanor Roosevelt*. New York: Warner Books: 2002.

Polls flourished in 1999 and 2000 naming the most important people and events of the 20th century. One fact remained a constant across all polls. The most famous and influential woman of the century was Eleanor Roosevelt. In dramatic irony, the woman who came to fame because she was the wife of a US president completely eclipsed her husband in renown by century's end. School children may not even know who FDR was, but they all know Eleanor sixty years after the couple lived in the White House a record four terms.

Countless historians have written of Eleanor and Franklin Delano Roosevelt, but their grandson David offers a uniquely personal perspective of the woman once called "First Lady of the World." David Roosevelt is the son of Eleanor's son Elliott, the last of her children to die (1992) and the author of the very popular Eleanor Roosevelt mysteries featuring the First Lady as the sleuth in crimes that occur in the East Room, Rose Garden and other White House and Roosevelt Family locales such as Hyde Park.

The strongest assets of this loving biography are the personal perspectives a man—now a grandfather himself—can provide about a grandmother he loved, and the collection of family photographs, many never published before. Roosevelt spent many boyhood vacations with his cousins and his grandmother at Val-Kill, her retreat in upstate New York. She made it a kind of paradise for children. "There were few rules and even fewer schedules, and we were left free to do whatever we wanted. She used to call me 'the little cowboy' because of my penchant for wearing cowboy boots and shorts, my favorite attire as a small child" (He was raised on a Texas ranch.)

Of course, many of the facts of Eleanor's life are here. Her cold, distant mother and grandmother, her father's alcoholism, the early death of both her parents, her Uncle Teddy—President of the United States—giving her away on her wedding day to her fifth-cousin Franklin, FDR's polio, The Depression, World War II, her United Nations years after her husband's death in office, and final years as a world famous speaker and writer.

One of the fascinating footnotes in the story is the letter incorporated from Her Royal Highness Princess Margriet of the Netherlands. She was born in Canada during World War II because Holland was under Nazi occupation and the Dutch Royal Family in exile. Because Teddy, Eleanor, and Franklin shared the common Dutch ancestor Claes Martenszen who settled in New Amsterdam (Manhattan Island) in 1637, the Roosevelts took a special interest in the House of Orange and

entertained Queen Wilhelmina and her family at the White House and Hyde Park. FDR was the godfather of Princess Margriet. Other fascinating stories include Eleanor Roosevelt's remarkable trips to visit American servicemen in Australia and elsewhere during the Second World War.

This is not a formal or objective history of a First Lady or United Nations Ambassador. Grandmere is a loving remembrance of an indulgent, deeply caring woman. As such, it provides many little known details about a great person, as well as affectionate insights into the heart of a loving grandmother.

St. George, Judith. *So You Want to Be an Inventor?* Illustrated by David Small. New York: Philomel, 2002.

St. George and Small found their own inventive genius highly honored with their 2000 collaboration, *So You Want to Be President?* (New York: Penguin Putnam, 2000) which won the Caldecott Medal for Small and numerous other prizes. The same format and style is utilized here to celebrate some of the world's greatest inventors—famous inventors such as, Benjamin Franklin, Thomas Jefferson, Eli Whitney, Cyrus McCormick, Guglielmo Marconi, Johannes Gutenberg, Alexander Graham Bell, and Thomas Edison as well as lesser-known inventors such as Josephine Cochran, Charles Macintosh, Igor Sikorsky, and Hedy Lamarr.

Altogether, vignettes of nearly 40 inventors are shared. Give credit to St. George for finding some of the best invention history lore to share. The invention of Joseph Guillotin's guillotine and actress Hedy Lamarr's 1940s wartime creation of a system for guiding torpedoes by radio signals are but two stimulating examples. The profiles are much too brief to be used as resource material for school projects, but they do serve as exciting stimulators for gifted students who will be motivated to engage in follow up studies of these amazing people.

Small's illustrations are the heart and soul of the book. The renderings of inventors are every bit as colorful and vibrant as his previous Caldecott Medal and Caldecott Honor efforts. They are filled with good humor, too. Swiss engineer Georges de Mestral's conversion of the problematic cockleburs into the highly useful invention of Velcro is a laugh-out-loud example. Another stunning double-page spread is the presentation of Wilhelm Roentgen's 1895 discovery of X rays. Few illustrators working today handle the cartoon format so aptly. Parents who read this book to their younger gifted children will enjoy this book every bit as much as their children.

Cummings, Pat & Linda Cummings. *Talking with Adventurers: Conversations with Christiana M. Allen, Robert Ballard, Michael L. Blakely, Ann Bowles, David Doubilte, Jane Goodall, Dereck & Beverly Jourbert, Michael Novacek, Johan Reinhard, Rick C. West, and Juris Zarins.* Washington, DC: National Geographic Society, 1998.

Early in their lives, sisters Pat and Linda Cummings moved often and traveled the world as members of a military family. Their taste for adventure was never lost so it is not surprising that Pat Cummings uses her "Talking With" formula, teams with her sister, and goes in search of people who have built lives and careers centered upon that magnetic word: adventure. *Talking with Adventurers* shares conversations with a dozen people who contribute their remembrances of exploits and enterprises that have sometimes made international headlines. Two of the most famous stories involve Robert Ballard and Jane Goodall. Ballard describes his quest to locate the Titanic on the ocean floor and his attempts to bring the thrill of adventure to millions of students through the Jason Project. Goodall speaks of her lifelong interest in animals and her pioneering work with chimpanzees living near the shores of Lake Tanganyika.

The work of adventurers featured in the book is found on every continent and in the world's oceans. Michael L. Blakey, an anthropologist, digs in historical sites in locations that range from New York City to the Great Zimbabwe ruins in Africa. Ann Bowles, a bioacoustician (someone who studies the effect of human-made noises upon marine life and land animals), researches communication among emperor penguins on the Antarctic Peninsula. Underwater photographer David Doubilet recalls a face-to-face encounter with an angry shark off the coast of Australia, and Michael Novacek, a paleontologist, describes stinging Gobi Desert sandstorms that often inhibit his search for dinosaur skeletons.

Each profile features a first-person statement directed to students about the joys of hard work, the search for truth, and thrill of adventurous labor. Each adventurer also answers a standard schedule of questions. Questions range from "What is the scariest thing that ever happened to you?" to "What was your biggest discovery?" A number of the adventurers have become spokespersons for projects and interests such as Ballard's Jason Project and Goodall's Roots and Shoots student clubs. Information about all these projects is provided along with the interviews.

Pat Cummings, a talented artist herself, has become a creative observer and chronicler of giftedness and the creative process as it manifests itself in others. In 1992, she received the Boston Globe/Horn Book Award for Nonfiction for her first volume of *Talking with Artists* (Bradbury Press, 1992), a book of conversations with such legendary children's books illustrators as Leo and Diane Dillon, Chris Van Allsburg, and David Wiesner. In two subsequent works, *Talking with Artists,* Volume Two (Simon & Schuster 1995) and *Talking with Artists,* Volume Three (Clarion Books, 1999) she has featured such artists as Kevin Henkes, Brian Pinkney, Paul O. Zelinsky, and Lisa Desimini.

One of the many fine virtues of *Talking with Artists* series is its inclusion of elementary school photographs of the artists and samples of their childhood artwork along with contemporary photographs and illustrations. Young readers and illustrators can see what some of their favorite artists as they appeared when they were kids themselves. Importantly, they also note that the artwork of a six-year-old future Caldecott Medal winner such as Chris Van Allsburg was not yet of museum quality. Learning to be an artist is an evolutionary process; artists continually grow in their skill development and creativity. A question-and-answer format in all three volumes of *Talking with Artists* allows the illustrators to describe typical work days, share personal stories of how they found their pathways into the field of children's book illustration, reveal where they find ideas, and provide general information about their homes, children, and pets.

Lois Ehlert recalls how her parents designated a corner of the family dining room as her place for doing art. She fashioned

all kinds of projects from her card table workspace. Ehlert also explains how she uses collage in her work, and how she fashioned her first book from sketches, created a cardboard cover, sewed the pages together, and took the completed product to New York City in search of a publisher. After being turned down many times, she finally succeeded. One of the really valuable lessons students will learn from a reading of the profiles in this collection and others is that success rarely comes easily. Tenacity and faith in their talents and abilities figures highly in virtually all artists' personal stories.

A particularly helpful feature of the latter two volumes of *Talking with Artists* is the inclusion of "Secret Techniques" sections in which featured artists share trade secrets of illustration. In the third volume, Kevin Hawkes, for example, describes and shows how to draw realistic human eyes with just three circles and well-placed shading, and Keiko Narahashi prescribes how to deftly add touches of shadowing to give objects perspective in drawings.

Cummings in all her "Talking With" books provides models of how biographers ask the right questions in order to provoke relevant and stimulating responses. Gifted students can use her model to create their own schedules of pertinent and appropriate biography questions for their subjects.

Asgedom, Mawi. *Of Beetles and Angels: A True Story of the American Dream*. Chicago: Megadee Books, 2002.

Asgedom's family fled war-torn Ethiopia when Mawi was three years old and spent the next three years in a refugee camp in Sudan before immigrating to Wheaton, Illinois when he was seven. From enormous deprivation and dire poverty, this gifted young man learned a new language, became a high school honor student, athlete, and National Honor Society president. He received a full-tuition scholarship to Harvard University and four years later was the commencement speaker before 30,000 people at America's most prestigious seat of higher education. He relates his earliest memories of Africa, the tragedies of the deaths of his beloved older brother and father in two separate accidents, both caused by drunk drivers. His account of the racial abuse he and his brother Tewolde faced on school playgrounds are harrowing. But, he also fondly and comically recalls the Trick-or-Treat pranks, soaring joys, and good times of growing up as a recent immigrant to America. His struggle to succeed is inspirational and informative. His beautifully expressed views of a positive life in spite of tragedies and deprivations faced, will ennoble readers. At every turn this graceful man sees angels and not beetles.

Asgedom's memoir will serve as inspiration to any students who face tough challenges. His book also serves as a fine model for gifted students who want to begin chronicling their own memoirs.

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ABRAHAM LINCOLN: GIFTED MAN AND A HERO FOR THE AGES

By Jerry Flack

Sir Richard Livingstone wrote, "True education is the habitual vision of greatness." If we wish gifted and talented youths to have visions of greatness, such images may be found in an examination of the extraordinary life of Abraham Lincoln. What more natural a subject to study than Abraham Lincoln. There is so very much that young gifted people can learn from an examination of his life. No American man shines more brilliantly than Abraham Lincoln. In his superb biography of Lincoln, written specifically for youth, historian Albert Marrin notes that in the past fifty years, every poll of historians has ranked Abraham Lincoln as America's greatest president. Marrin argues that this fact is not because Lincoln was a perfect man. He made many mistakes and had many weaknesses, including self-doubt, prejudice, and hesitation. He cried openly in front of generals and cabinet members. But, Marrin points out, Lincoln also had the great gift, the capacity for

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growth. Lincoln rose above his humble beginnings, his own weaknesses and prejudices, always learning, always maturing as a leader. Marrin furthers his tribute to Lincoln by arguing that while George Washington (incidentally, Lincoln's greatest hero) is perceived as the father of our country, Lincoln must be seen to represent the unity and brotherhood of the American people.

Lincoln Facts and Accomplishments

In addition to being judged the greatest American president ever by historians, Lincoln is also esteemed to have been the greatest writer among all the presidents. This is a singular tribute to Lincoln's own genius, his profound respect for the power of words, and his ever-present thirst for learning, especially considering that if one puts all of Lincoln's formal schooling together, it represents roughly the equivalent of one year of formal education. With no paper or pencil available, and most likely no slate, the young Lincoln practiced writing by scratching letters with a rock on the backside of a shovel. Lincoln was mostly a self-taught linguistic genius.

Lincoln's life was filled with ironies. He so abhorred killing that he gave away his hunting rifle after he killed a turkey as a boy; yet he presided over the deadliest war in American history. He was melancholy and wept openly at cabinet meetings when he was president. Some say that he even foretold his own death based on dreams he had shortly before the terrible, fateful night at Ford's Theater.

Lincoln possessed an indomitable spirit. He failed in business and lost far more elections than he ever won; yet he never ceased to persevere. In 1860, he won the presidency with less than 40% of the votes cast, making him the most unpopular choice for president in the nation's history, yet he became the greatest president ever.

The Lincolns suffered terrible indignities. Lincoln actually had to go before Congress as President of the United States in the midst of the Civil War and swear on a Bible that his wife was not a traitor to the Union on behalf of the Confederacy.

Lincoln lost two of his four sons (Edward in 1850; Willie in 1862) while they were still in childhood and the grief nearly destroyed him. One story, perhaps apocryphal, is that Lincoln's grief over his second lost son, William or "Willie," was so intense that he had the boy's body exhumed at least once so that he could look once more upon his son's face. Lincoln was only a boy when his mother died and a young man when he lost his only other blood relative, his sister.

Lincoln Books

There is no shortage of fine Lincoln books for gifted students of all ages. Only Jesus Christ and Shakespeare have more books about them registered in the Library of Congress. The biographies that follow are especially relevant and timely works about Lincoln.

Lincoln himself was highly skeptical of biographies, believing them to be more concerned with exalting or incriminating the subject than with telling the truth. Happily, today there are many excellent accounts of Lincoln's life available for every age level so that it is not difficult for parents and teachers to find first-rate biographies. Every year several new Lincoln biographies appear. One of the few works of non-fiction to ever win the prestigious Newbery Medal is Russell Freedman's *Lincoln: A Photobiography*. Ingri and Edgar Parin d'Aulaire won the Caldecott Medal for *Abraham Lincoln* in 1940, making Lincoln the only biography subject of both Newbery and Caldecott Medal books.

Here is one idea to try. Allow younger gifted students to choose a picture book or easy reading account about Lincoln. Parents choose a more difficult Lincoln biography. Then, genuine literary discussions can take place at the dinner table about the respective books read and the facts enjoyed.

Bial, Raymond (1997). *Where Lincoln Walked*. New York: Walker and Company.

Bial traces Lincoln's footsteps from Kentucky to Illinois with superb photography that captures the look and feel of much of the pioneer era of these states. Lincoln lived most of his life in a rural environment. He was born and raised in land dominated by virgin forests. His mother died of a disease called "milk sickness," the cause of which was then unknown. Only later did people come to realize that the deadly illness was caused when humans drank milk from cows that had eaten the deadly snakeroot plant. Bial's text is highly informative and fascinating to read. What makes this book so outstanding are his stunning photographs of the natural world of Kentucky, Indiana, and Illinois where Lincoln once walked. Despite the nearly two centuries that have passed since Lincoln's birth, Bial manages to present Lincoln's home ground essentially as if untouched by time and commercial progress.

Freedman, Russell (1988). *Lincoln: A Photobiography*. New York: Clarion.

Freedman won the Newbery Medal for this exceptional biography of the 16th U.S. President, Abraham Lincoln. Lincoln was the first president to be substantially photographed, and it is some surprise that it took so long for a creative person to realize that the parallel story of photography and Lincoln would make fascinating reading. In addition to the superb documentary nature of this classic biography of Lincoln, Freedman sprinkles his text with illuminating stories that grab the attention of young readers. Freedman's Lincoln is full of surprises that delight young readers. For example, the fact that Lincoln shamelessly spoiled his children awakens in young readers a whole new appreciation for a man that seems to climb down from stark portraits and marble monuments to become a flesh and blood, genuinely fun father figure. He never disciplined his children and allowed them to make havoc of both his Springfield law office and the White House. Among other things, the boys rode a cart pulled by a goat up and down the halls of the White House at top speed! Considering that three of the boys died before adulthood, Lincoln's unconditional love for his sons and great joy in seeing them in unrestrained play appears to have been so very wise.

Lincoln is a fascinating, compassionate, and altogether engaging man in this biography that is enjoyed equally by children and adults. Freedman is a masterful writer who has won virtually every award in children's literature and this is clearly his masterpiece. It is one of the most essential and most enjoyable books ever written about an American president for

young people. This is a great book for shared family reading. Just do not let the kids bring the goats into the house.

Holzer, Harold, Ed. (2000). *Abraham Lincoln the Writer: A Treasury of His Greatest Speeches & Letters*. Honesdale, PA: Boyds Mills Press.

Holzer, a Lincoln scholar, focuses upon Lincoln as writer in this highly informative and revealing book. He contends that although Lincoln had roughly the equivalent of just one year of schooling, historians judge him to be the greatest writer among all the presidents. Moreover, all of Lincoln's writing was exclusively his own. He had no speech writers. Holzer reminds readers that Lincoln was an attorney, and indeed a very successful one. As a result his writing often falls into two categories. Writings such as the Emancipation Proclamation have a definite legal tone. This was no accident. Lincoln was very conscious that politicians in the future might try to tamper with the document. He wanted it to be explicit and similar to a legal document that could not be broken under any circumstances. On the other hand, Lincoln's poetic writing is perhaps best exemplified by the Gettysburg Address with its soaring tribute to sacrifice and its eternal message about unification and the future of the nation. The writings, presented in chronological order, begin with a poem Lincoln wrote at about 16 years, and continue through to a message he delivered to Indiana soldiers in March of 1865, less than a month before he was assassinated. In addition to presenting some of Lincoln's finest writings, Holzer provides a chronology of Lincoln's life and introductions to each of the benchmark eras in the great Emancipator's life.

Marrin, Albert (1997). *Commander in Chief Abraham Lincoln and the Civil War*. New York: Dutton.

Marrin is a superb historian who writes especially cogent books about American heroes for young adult readers. In addition to this work on Lincoln, he has written superb biographies of George Washington and Ulysses S. Grant. Although Marrin particularly claims that this work is not a biography of Lincoln, readers would be hard pressed to find a better one. What Marrin attempts (and he succeeds) to do is present more of a tribute to Lincoln as a superb Commander-in-Chief. Lincoln's greatness as president during the nation's greatest, most costly, and passionate war is explored brilliantly in this book. One of the things that makes the book such essential and enjoyable reading is Marrin's detective skills as an historian. He has managed to find stories and anecdotes about Lincoln that are not only revealing but fresh and likely to have been unread previously by even devoted fans of Lincoln biographies or Civil War literature. To cap Marrin's triumph, he is a first rate storyteller. This is a remarkable biography of Lincoln, even if Marrin eschews that label.

Pinkney, Andrea Davis (2001). *Dear Mr. President: Abraham Lincoln: Letters to a Slave Girl*. New York: Winslow Press.

This is the third in a new series of historical fiction about presidents of the United States, the two previous volumes being dedicated to Theodore Roosevelt and Thomas Jefferson. The project is a noble effort to infuse today's youth with a fascination for the great leaders of the nation's past.

In *Dear Mr. President*, a young slave girl, Lettie Tucker, lives on a plantation near Charleston, South Carolina, where the first shots of the Civil War were fired. On April 15, 1861, Lettie begins a correspondence with Abraham Lincoln that continues between the two until July 28, 1863, when Lettie comes to Philadelphia where she and all her family achieve freedom. Although Lettie and the letters are all fictional, the book is filled with fascinating historical facts such as the fact that Lincoln's youngest son Tad was born with a cleft palate and could not speak properly, or that Lincoln chided his oldest son Robert for being too lazy. Robert has failed his first entrance attempt into Harvard. Readers also learn that Mrs. Lincoln's personal dressmaker was a Negro woman, Elizabeth Keckley. The book is extremely well illustrated with period photographs and drawings and contains a separate biography and timeline of Lincoln's life. Web sites are also provided for both teachers and students wishing to do further research. An extensive bibliography is also provided.

Turner, Ann (2001). *Abe Lincoln Remembers*. Illustrated by Wendell Minor. New York: HarperCollins.

It is April, 1865, the Civil War has just ended and Abe Lincoln is sitting in the White House waiting for his wife, Mary, to finish dressing. This is a happy night and the Lincoln's are going to Ford's Theater to see a play. As Lincoln patiently waits, he thinks back over his life, his simple upbringing and how he made his way to the presidency from the small log cabin in Kentucky with only one window, to his love of learning and going to law school, to entering politics and finally becoming president, to believing in one country, whole, not half slave, half free. Ann Warren Turner's eloquently written "fictional biography" and Wendell Minor's beautifully expressive and detailed artwork combine to capture the reader's imagination with poignant, quiet emotion and moving text. Historical notes at the end fill in the rest of the story, including Lincoln's assassination. Abe Lincoln Remembers is a beautifully written, thoughtful story, perfect for youngsters and adults sharing the joys of reading.

Van Steenwyk, Elizabeth (2000). *When Abraham Talked to the Trees*. Illustrated by Bill Farnsworth. Grand Rapids, MI: William B. Eerdmans.

Van Steenwyk provides a poetic tribute to Lincoln. She especially highlights the great man's youth and his pursuit of the written and spoken word, even at the time when hard, back-breaking work left little time for reading and writing and speaking. The title comes from her assertion that even if the young Lincoln could not find a human audience to listen to his words, he did not give up; he would talk to the trees. She wisely concludes that long after the man himself is gone, the people still listen — even today. Farnsworth's impressionistic paintings are lovely to view.

Additional Abraham Lincoln Biographies

Adler, David. (1989). *A picture book of Abraham Lincoln*. Illustrated by Alexandra Wallner. New York: Holiday House.

Barkan, Joanne. (1990). *Abraham Lincoln and president's day*. Illustrated by Lyle Miller. Englewood Cliffs, NJ: Silver Press.

Greene, Carol. (1989). *Abraham Lincoln: President of a*

divided country. Chicago, IL: Children's Press.

Harness, Cheryl. (1996). *Young Abe Lincoln: The frontier days, 1809-1837*. Washington, D.C.: National Geographic Society.

Harness, Cheryl. (1997). *Abe Lincoln goes to Washington, 1837-1865*. Washington, D.C.: National Geographic Society.

Kunhardt, Edith. (1993). *Honest Abe*. Paintings by Malcah Zeldis. New York: Greenwillow.

Lincoln, Abraham. (1995). *The Gettysburg Address*. Illustrated by Michael McCurdy. Boston: Houghton Mifflin.

Livingston, Myra Cohn. (1993). *Abraham Lincoln: A man for all the people*. Illustrated by Samuel Byrd. New York: Holiday House.

Meltzer, Milton. (Ed.) (1993). *Lincoln in his own words*. Illustrated by Stephen. Alcorn. San Diego: Harcourt Brace & Company.

Winnick, Karen. (1996). *Mr. Lincoln's whiskers*. Boyd's Mill Press. The delightful true story of the young girl who wrote to Lincoln and suggested that he grow a beard.

Woods, Andrew. (1992). *Young Abraham Lincoln: Log-cabin president*. Illustrated by Pat Schories. Troll Associates.

Lincoln Activities

There is no shortage of productive activities and pursuits to occupy the minds of gifted students of all ages. Activities can cross the boundaries of art, technology, science, social studies, music, psychology, literature, logic and mathematics as well as tap into all standards. A fine culminating activity can be the creation of a classroom Abraham Lincoln Museum that showcases all the creative artifacts of highly productive gifted students. The grand opening of the classroom museum may be a ribbon-cutting ceremony with two students dressed as and in the roles of Mary Todd and Abraham Lincoln.

Read Lincoln biographies and create a time line of his life.

Research Mary Todd Lincoln's reported mental instability and write a psychological report of this famous woman.

Write about the death of Lincoln's sons and his reaction to the deaths.

Why do historians always choose Lincoln as the greatest president? What were his greatest achievements?

There are hundred, if not thousands, of Internet sites about Lincoln. Engage in a search. What are the ten best sites and what information or resources does each provide?

Survey some of the best painting, sculptures (e.g., Lincoln Memorial, Mt. Rushmore), books, films, and music that serve as tributes to Lincoln. Create a catalogue of outstanding Lincoln tributes. Be sure to note each can be found.

Which books about Lincoln have won the Newbery and Caldecott Medals?

Read the works of great American poets and writers who worked during Lincoln's lifetime (e.g., Emily Dickinson, Walt Whitman, John Greenleaf Whittier).

Map all the locales of Lincoln's lifetime.

Create a map of the battlefields of the Civil War. Note the battlefields Lincoln visited.

Research diseases that directly impacted Lincoln's family. What caused his mother and sons to die?

What diseases caused more casualties during the Civil War than any other war in American history?

Discover the kinds of foods common to the Lincoln family diet. Create a similar meal making notes as to the calories, vitamins, and minerals made available.

Examine letters that Lincoln received and wrote. (Two fine examples are Grace Belden's letter urging him to grow a beard, and his letter to Mrs. Bixby, a mother who lost five sons in the war.) Write a letter in Lincoln's style to a real or imagined person. For example, what kind of a letter might he have written to his eldest son Robert?

Make a scrapbook of some of Lincoln's most famous sayings or aphorisms.

Study architecture inspired by Lincoln, such as the Lincoln Memorial or buildings that carry his name. Create a sketchbook of designs of such buildings.

Create an original math story problem involving such things as the miles of rails built during the war, estimated miles Lincoln traveled in his lifetime, or the financial costs of the war. The Lincoln Memorial was built due the contributions of nickels by American school children. Can you determine how many nickels were needed to build the white marble monument in Washington, DC?

Create a "Jeopardy"-style game of categories and questions about the life of Abraham Lincoln.

Craft a collage of Lincoln images and words.

Map the route of Lincoln's funeral train from Washington, DC to Springfield, Illinois.

Listen to Aaron Copland's "Lincoln Portrait." Draw visual images that come to mind.

Alone or with others, act out a scene from Lincoln's life. Perhaps recite the "Gettysburg Address" or recreate one of the two White House meetings Lincoln had with abolitionist leader Frederick Douglass.

Consider personal defeat. Lincoln went bankrupt in his first business venture. He lost far more elections than he ever won. He was despised by much of the United States before and during his presidency. He buried two of his four sons. How did a man with such staggering losses become the greatest president in the nation's history? Some people say that Lincoln possessed "an indomitable spirit." What does that mean? Why do you think losses cripple some people yet allow a man like Lincoln to endure and ultimately triumph?

Seek and read evidence of Lincoln's faith, of his belief in God.

Write an essay: Why I Admire Abraham Lincoln.

CONCLUSION

In his Newbery Medal book *Lincoln: A Photobiography* (pg. 134), Russell Freedman notes Lincoln's remark to a young law student: "Always bear in mind that your own resolution to

succeed, is more important than any other one thing." If parents and educators want gifted students to succeed, they must provide models of greatness. It is impossible to imagine a greater example of giftedness achieved than the life of Abraham Lincoln. When one adds into the equation the humble beginnings and misfortunes of life that Lincoln suffered, his importance as a role model becomes even larger. Lincoln is quite probably the greatest American ever and as such the study of his life is a most worthy enterprise.

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RESPONDING TO FAILURE

By Ann MacDonald & Jim Riley

Failure can be a success in the classroom—a vital topic for students who tend to push the envelope and also for those who should but do not. The teacher must set up lessons sufficiently challenging to include the possibility of failing, realizing that some initial failure in the classroom is armament against the likely head-on collisions of a gifted person's growth. Fear of failure is a hot button that can start lively discussions on assessing the directions life can take. Development of characters in literature, advancements in science or the arts, personal growth-any human endeavor worth considering involves some element of failure.

In this three-part series of lessons, students will examine situations where some failure is both inevitable and positive. Begin with the whole class looking at the forms of failure, continue with group work using resources to refine and extend examples of failure, and conclude with individual reactions to risk-taking. Adapt the approach for different ages by using examples applicable to the specific group.

Mistakes Were Made

Defining failure can be therapeutic. The following is offered as a framework to tame fears and note the appearance and habits of the bestiary. It is easy to find cartoons that will supplement class discussion with humorous examples contrasting aspirations with results, as in "What she said, what he heard". It is also easy to find quips and quotes on failure in quotation books or the Internet. The students should be recording concepts and examples as they are brought out in discussion. An alternative form of recording could be on chart paper or a whiteboard.

In this first section of the series, students will come to see one type of failure:

- downhill—literally bad news but still a source of guidance
- on the level—a disconnect with society
- uphill—essential to progress.

Downhill. Fatal failures are irrevocable, especially for the failure-ee. This category of failure results from lack of information (using a match to check the gas supply), poor moral judgment (if it feels good, do it), or accident (the perversity of inanimate objects).

The class should record examples brought out in discussion and decide what reaction or analysis society utilizes to avoid repetition. The autopsy, FAA investigation, and safety legislation, for example, contribute to hindsight solutions.

On the Level. A person can fail to keep up with society, and, conversely, society can fail to keep up with a person. Both situations appear as not getting anywhere.

Failure of an individual to aspire can occur in education, business, sports, or anywhere the lack of individual growth is contrasted with the growth of others. Formerly successful people can be left far behind if they simply rest on their laurels. It is easy to think of situations where society can pull ahead of an individual; computer technology, clothing styles, menu offerings, and school classes are all good examples. It is difficult, however, to work out practical solutions for the complexity of causes.

Perceived failure occurs when innovation is far ahead of its time. If an individual has really pushed the envelope, the new way of looking at things is bound to meet some-or perhaps total-disapproval. Stravinsky's *The Rite of Spring* and the Tucker automobile did not draw immediate rave reviews. Society might eventually reassess the new changes, but for some time there is failure.

Uphill. Instructive failures happen more often than success and are essential for growth. This is where an effective teacher, coach, parent, diplomat, or trainer helps the learner with analysis to "get back on the horse."

The struggle uphill can be a long one, requiring patience and persistence. Consider the number of failures preceding the present Catholic/Protestant truce in Northern Ireland or the apartheid resolution in South Africa, and the perpetual crisis in the Mid-East.

Practicing a new skill inevitably involves failure, but that failure needs to be part of a series of carefully prescribed steps followed by supportive analysis and encouragement for the next leap. Articulate fingering for the piano player or incisive selection among synonyms for the writer develops through perceptive instruction.

Being A Failure Isn't As Easy As It Looks

Having defined types of failure, the students are now ready to analyze examples from various fields of endeavor. Group students for research into topics such as medicine, science and technology, arts and entertainment, business, history, and sports.

BEST COPY AVAILABLE

One remarkable resource for this study is the Internet magazine *Failure*. (www.failuremag.com) which reports on and categorizes the lack of success in many aspects of society. The magazine is used by many classrooms and requires no registration. As with all Internet sites, care must be taken for the appropriateness of chosen articles. Selected articles can be printed out and offered to the class if the Internet is not available to students. Additional resources for this curriculum are listed at the end of the article.

Using the Internet and print sources, students will isolate particular failures; identify the types and see they are assessed as failures; find the specific causes, consequences, efforts to ameliorate the effect; and, finally, note any subsequent successes. They should look for patterns and multiple viewpoints within the grouping and any generalizations that can be drawn; for example, warning signs of impending failure are often ignored.

After gathering the material, the groups needs to prepare some method for whole group presentation using specifics to support the generalizations. PowerPoint slide shows, poster board displays, newscasts, or interviews provide lively means of providing information to a real audience. As the groups report, ask students to note any inter-group relationships and their connections to risks taken as well as particular risk patterns for any given field. A risk/benefit analysis could be included for older students. These insights could become the second part of the students' individual notebooks on failure.

Advanced Mistakes

Now that the students have defined failure in class discussion and extended the understanding with group research reported to the class, they are ready for the third section: individual research examining reactions to failure. This can take the form of character analysis in literature where personal flaws are the source of failure. The inevitable appearance of failure as a component of advancement in a field of endeavor, or some personal understanding where failure was the catalyst for an eventual success offers fertile fields for study.

The final product, of course, is open to the style of your class. General possibilities include:

- an analytic report on a structural or policy failure
- motivational speech to encourage action when the path looks foreboding
- dramatic presentation—"If at first you don't succeed, you're fired."—around the themes of excellence and perfectionism
- an editorial essay responding to a current local impasse where the understanding of failure can restart communication
- a cartoon centered on hiding failure
- a sales talk anticipating and responding to points of resistance.

While students are researching their independent projects, talking points for class discussion can be used intermittently to stimulate new approaches and as a forum for raising and answering questions:

- Are society's various plans for dealing with emergencies realistic?
- Is there a way to determine if the risk of a particular action is worth the potential benefit?
- Is assignment of fault worthwhile or do better solutions arise from no-fault laws?
- What is the effect of having errors published regularly?
- What is the effect of pressure to succeed vs. the emotional release when there's nothing to lose?

This series of lessons began with the statement that failure can be a success in the classroom. Failure management should be an integral part of the curriculum—especially for gifted students, whose internal and external pressures to succeed often need a control valve that comes from understanding failure. You can win for losing.

REFERENCES:

Dorner, D. (1996). *The logic of failure: Recognizing and avoiding error in complex situations.* Cambridge, MA: Perseus Books. This technical book includes a wide-ranging analysis of disaster-from Chernobyl to AIDS-with strategies for dealing with the negatives in life. Recommended for high school and teacher background.

Goldberg, M.H. (1984). *The blunder book.* New York: Quill/William Morrow. This book contains a collection of colossal errors, minor mistakes, and surprising slip-ups that have changed the course of history. Recommended for upper elementary through high school.

Manz, C.C. (2002). *The power of failure: 27 ways to turn life's setbacks into success.* San Francisco, CA: Berrett-Koehler Publishers, Inc. This motivational book is part of a leadership series with inspiring examples, appropriate epigrams, and a useful index covering people and concepts. Recommended for upper elementary through middle school.

Maxwell, J.C. (2000). *Failing forward: Turning mistakes into stepping stones for success.* Nashville, TN: Thomas Nelson Publishers. This is part of a self-help series dealing with the steps for changing one's attitude from feeling like a failure to being capable of recovery. Recommended for middle school through high school.

Roberts, R.M. (1989). *Serendipity.* New York: John Wiley and Sons. This is a well-researched book of discoveries in science, history, from chance observations to accidental discoveries. The technical scientific information is balanced by the lively descriptions of the discoverers and their discoveries. Recommended for high school and teacher background.

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THE NOT-SO-GIFTED PARENT: REPLACING TRIAL AND ERROR WITH IDENTIFICATION AND INTERVENTION

By Monica Lu

Okay, I'll admit it. Sometimes I wish my job as mom were much easier. And I wonder sometimes if it would be, if my daughters weren't so smart. That sounds arrogant, doesn't it? Well then, maybe the answer really resides in daily mega-consumption of Gingko Biloba and other various herbs to boost my own memory and IQ. Somehow, though, I think my "smarts" will remain as they are and I will still occasionally rely on my creative devices to pull that rabbit out of the hat when I need it. Luck, experience, prayer, and lately, outside support have given me some level of confidence to brave the upcoming teen years with three gifted daughters. Unfortunately, that wasn't always the case.

Early Struggles

My journey with my eldest daughter began when she was less than one year old. Having little experience with any children and not knowing what gifted and talented was, I assumed I had a normal child. My daughter loved books and would crawl to a little book corner I set up and look at books. An hour might go by and she would still sit. By eighteen months I had taught her the letters of the alphabet and she was speaking in full sentences. Her grandparents were quite impressed. In both instances, I thought this was normal.

About the same time, she became a proud big sister. She must have enjoyed the peace and tranquility in our house prior to sis's arrival, but that was no longer to be. She suddenly started throwing tantrums that would last one to two hours. These were the worst tantrums you could imagine and ignoring her was of no use. I called these quite fittingly the "in-your-face" tantrums, since she threw them practically right in my face. Often these tantrums would come in the middle of the night, sometime after midnight. Between our newborn daughter and our eldest, needless to say, we were exhausted. (One saving grace was that they came on only every other night, because she was exhausted after "tantrum night".) And still, knowing little about toddlers, I thought her behavior was normal.

She completed her favorite 60-piece puzzle on her own when she was two. She had the puzzle down so well that she could put it together faster than either my husband or I could. I attributed my inability to complete it faster to my physical fatigue from having children or due to my brain shriveling up from watching too much Sesame Street. I thought this might be normal (both her ability to piece the puzzle together quickly and my early onset of dementia), but began to suspect that there may be something more going on. Unfortunately, with no other children to serve as comparisons, I didn't spend a lot of time dwelling on it, even as 100 piece puzzles quickly replaced the smaller ones.

When she was three, she presented a mental challenge to us for which I was unprepared. She was and still is very strong-willed and we had lost many battles just attempting to get her to stay in time-out. Spanking for discipline issues was futile. My husband and I could not get her to obey. I remember at one point carrying her prone body out of a store while she screamed at the top of her lungs. As I passed a woman going into the store, she remarked "Looks like somebody's tired!" "Yes," I replied, "and she's tired, too." Her lack of discipline was wearing both my husband and I down.

We sought professional guidance on how to get her to go to and stay in time-out. Fortunately, our counselor offered a solution that helped us tremendously, much to the delight of the family who lived below us in our duplex who no doubt wondered what we were doing to our child in the middle of the night. Those days I half anticipated DCFS coming to our door to check the matter out. In the heat of a terrible tantrum, I wondered if I would have been able to hide the look of glee on my face when they uttered those words, "Ma'am, we need to take your child."

Fortunately, DCFS never showed up at our doorsteps. As we worked with our counselor over the course of a couple of months, he observed her at play and us with her. He remarked on her being bright, but we did not know what that meant. We had no guidance on how to help her as she struggled through early childhood.

Reflecting on the Early Years

Those early years were quite a struggle, indeed, and I'm amazed that we all survived. Today our daughter is nine years old. Having skipped second grade, she is now a fifth-grader at a gifted middle school in our town. Our middle daughter shows a great deal of aptitude in the arts, while our youngest shows quite an aptitude in mathematics. In the case of our younger daughters, we have been able to take our knowledge of how our eldest daughter's abilities required special needs and provide those earlier to them. In fact, our youngest has benefited most and at four years of age we enrolled her in a Montessori Kindergarten program. (We support public education, but the state requires that all students entering Kindergarten be at least five years old by September 1. She missed this requirement by seven weeks.)

As I look back over the last nine years or so, I can see where we would have benefited as a family from professional help. With this in mind, I recommend the following four initiatives to help parents like myself who struggle with gifted preschoolers:

- increase research to identify gifted preschoolers
- increase social support for both parents and children
- increase emotional support for both parents and children, and
- train preschool teachers to identify and work with gifted children.

Increase Research to Identify Gifted Preschoolers

I often wonder how much easier our oldest daughter's preschool years would have been if a professional had identified her as gifted and if we had received advice and reassurance from the very beginning. This, of course, could only be accomplished with a qualified professional's assistance. Early identification is necessary to set these wheels in motion.

I understand that there are difficulties. Some parents hold the fact that they have a gifted child up as high as the Williams's sisters hold up their Wimbledon trophy. That trophy status might drive some parents to try to "push" their child, even though a child cannot really be "pushed" or "programmed" to be gifted. Parents might bring their children for testing, only to be told that they do not meet the gifted criteria. One needs to weigh how many gifted children will be helped against the fact that some children will fall through the cracks and this will cause criticism (and, nowadays, possibly a DateLine or 20/20 report).

There is also a need for additional research into the needs of gifted preschoolers and how those needs can best be met. I leave details on those areas to the experts, since mine is strictly a parental perspective.

Increase Social Support for Parents and Children

Early identification can also help social development. In my opinion, social development is a challenge for many gifted children. How do we create in our children the ability for them to function in a world where the average IQ is well below theirs? And when is the ideal time to start this? As parents, we know when that is-as soon as they are able to interact with other children. What happens when you don't get confirmation that your child is gifted until the child is 6, 7, 8 years of age or even older? Do we suddenly shower them with coping skills and hope for the best? What becomes of the children who don't have the good fortune of having a gifted school like we do, where teachers are educated in all aspects of the development of gifted children?

The inability of others to see the value of gifted education also works against gifted children. After we received our letter inviting our daughter to attend the local gifted school, I struck up a conversation with a woman whose child, I thought, would also be attending the school. I was mistaken. The things she said about gifted education and the gifted school will stick in my mind for some time to come.

"Only nerds go to that school and I want my kids to be well-rounded. You know, they are in a lot of sports."

Oh, well, my daughter is a "nerd," I quietly replied. My head reeled as the nerd alert switch went off in my brain. I teach computer courses to college students. If that's not proof I'm a nerd, I don't know what is. My husband is a nerd, too. He works as a software developer for a large corporation. He's sad that he will always probably be a nerd, though he secretly aspires for full geek status.

Bill Gates is a nerd. In fact, come to think of it, nerds really rule the world. George Bush? Among other things, he goes to bed at 10:00 every night. What a nerd! Albert Einstein—ack, the hair, the brains, very high on the nerd scale, don't you think?

I could go on, but you get the point. Let me state that the woman who said this is very nice and a good mother. I attribute her comments to perceptions (which may have been formed with help of Tinseltown, where there are no visible nerds) and possibly her own misunderstanding of gifted youth. But, if adults in my town look down on the students at the gifted school, what do the kids think? When my daughter socializes with them, how do they handle her being "different"? How does she handle them? (One babysitter told our daughter that when she reaches high school, she shouldn't tell her classmates that she attended the gifted middle school. Again, money is poured into programs to teach youth to not discriminate against others. My daughter can change her talents as easily as another student can change her ethnic background.)

If our daughter could have been identified earlier, could I have taught her to handle social situations differently as a preschooler? As soon as we had confirmation that she fell in the "gifted" range at age 6, we hit it straight on. We explained to her what is happening and how she thinks differently than other kids. We still continue to work with her today, though she has made many new friends at her school. She has found her niche there and has found many friends who are more like her. It took five years of school for us to get to this point. (We are very fortunate to have a gifted middle school here in town. I wonder what happens to the kids who never do get to the point of being comfortable in social settings because of their giftedness.)

Early identification can enable parents like my husband and I to meet and discuss our mysteries. Meeting with a gifted

educator or psychologist specializing in gifted children would enable further exchange of information and help when it is most needed. I can attest that the emotional support would have been appreciated at certain hair-raising experiences in my journey!

Increase Emotional Support for both Parents and Children

During my own struggles, tears, stress, and constant doubting of my own abilities, where was the professional help? How many other families struggle through this in one way or another? Are their outcomes happy ones? What becomes of those families where the parents are not very well educated and don't realize their child's giftedness is the "problem" in their family? Do these young children get written off as little brats? Are they put on Ritalin? Are they physically abused in order to break their will and get them to obey?

The trials and errors we have had to endure have made me acutely aware of the lack of resources for families like ours. Sure, we have survived through these trials and errors, but overall we are strong individuals who come from educated families, have graduate degrees of our own and enjoy working where education is held in high-esteem. Can help be extended to all families, including those who have not had the same opportunities as we have had?

Train Preschool Teachers to Identify and Work with Gifted Children

Are there enough mental challenges present in their early years to teach gifted preschoolers how to handle failures? When their perfectionist tendencies appear, how do they cope? How will their preschool teachers cope? I remember one incident at a preschool art class my daughter was taking when she was about 3 years old. She was upset because her artwork was not turning out as she had envisioned. Her art teacher stated to another parent standing next to me, "These kids get pushed so hard by the parents. It's no wonder they get so upset when they can't do things." Oh, contraire, Ms. Art Teacher. Please enter the Gifted Zone. Imagine if you will, a toddler pushing herself to perfection. Her father and mother don't fully realize what she is doing or why she gets so upset when she can't do something. They assure her that what she does is wonderful, flaws and all. Through their constant reassurances, she begins to calm down.

The art teacher surely could have benefited from education related to gifted preschoolers. Knowing what I know now about the tendencies of gifted children to be perfectionists, I talk about this now openly with my daughter. We've talked about the fact that straight A's are nice, but how we don't want her to sacrifice herself emotionally to get this affirmation of perfection. We talk about how some kids do this and what the extreme end-result can be. We talk about how perfection isn't worth it and if she ever feels stressed that she can talk to us. I feel that recognizing the problem, perfectionism, and addressing it with her has helped both her and I (and probably any future Ms. Art Teachers) to be less critical and more accepting of both children and parents.

Supporting Gifted Education

I hope you would agree that if there were professional identification and intervention for preschoolers, the biggest benefactors would be the children. So why not do it? Is it due to a lack of funding? Is it due to a lack of desire? Is it due to the misconception that it can't be done? Do we stand behind the skirts of political correctness—"but we won't be able to identify all the gifted children, so that wouldn't be fair"?

There are programs all over the country that are geared towards identifying and helping at-risk preschoolers. In 2001, for example, over 6 billion dollars was spent in the Head Start program alone, with nearly $250 million in Illinois.[1] Though I respect initiatives like Head Start, I wonder if educators and politicians understand that the emotional and social needs of a preschool-aged gifted child are as important as those of a struggling child. Ironically, to rise to the level of leadership that they have, many of these decision-makers may have once been a gifted preschooler!

How do we educate the general public (and our representatives in Springfield and Washington, DC) that the needs of our gifted children are just as critical as the needs of the at-risk? I'm encouraged when the Illinois Association for Gifted Children (IAGC) newsletter has articles about Washington decision-makers meeting with IAGC representatives. These are steps in the right direction and should be supported by everyone taking a special interest in gifted education.

Can corporate alliances be successfully forged to provide additional revenue sources for funding? Again, many of those leaders who excel in corporations are gifted. If it is not already being done, I encourage the IAGC and other gifted organizations to seriously consider these possibilities. Future employers are one obvious benefactor of the talents of our children. By demonstrating how their relationships can impact tomorrow's workforce, the IAGC may be able to leverage additional resources for both research and implementation.

Summary

I wrote this article as a parent-someone on the front lines 24/7. My intent is to raise awareness of the need for assistance in identifying and meeting the needs of gifted children prior to their entry into formal education. This article has hopefully sparked some ideas or interests in this area or has encouraged those already pursuing solutions to continue with their efforts.

Though I wonder like any parent if I could have done things differently, I know I did the best I could given the circumstances. I just would like to see those circumstances improved for families who might in the future find themselves in the same situation.

I can't help but think that through this identification and intervention early in their preschool years, both parents and educators won't have to play "catch up" later on. Plans for helping parents like myself would be both welcomed and encouraged. As you read this article, you likely identified the area where help is needed most. Primarily, any assistance at this early age would be to help sustain emotional stability and social acuity among gifted children so they can benefit throughout their lives.

Many challenges still await those addressing the needs of gifted children. As parents, we wholeheartedly support you in your efforts. The future of gifted education is limitless. As for our own future, my husband and I have started stockpiling resources and defense operations to help us when adolescence strikes. But, alas, even our resources may not be enough to counter the operations of a future U.S. Chief of the

Psychological Warfare Department. Nowadays, though, at least we know we can call for reinforcements!

Though I've used several illustrations here to inject humor into this article, I feel it is necessary to state that not only is my daughter gifted and strong-willed, she is also kind, thoughtful, and fair, and a wonderful daughter. I wouldn't trade her or her talents for the world.

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[1]http://www.acf.hhs.gov/programs/hsb/research/factsheets/02_hsfs.htm 2002 Head Start Fact Sheet as reported by the Head Start Bureau.

THEY DON'T TEACH THAT IN SCHOOL

By Dorothy Funk-Werblo

The subject of curriculum is a topic close to my heart. Our present curriculum has been watered down. It is just as insipid as a gallon of water flavored with a drop of vanilla. Recently, I was asked to speak to children who were members of Mensa and to their friends. Several weeks later, I spoke to educators including assistant principals, teachers, nurses, coaches and a colonel. I have asked these groups to list their heroes and heroines. To my amazement, someone in every group would ask, "What is a hero?" Privately I thought, "How can anyone, after the 9/11 incident, ask that question?"

Many members of the groups were under 45 and therefore had been taught ersatz social studies instead of geography and history. I hope you, the readers, are feeling indignant at my statements.

Be indignant at being cheated of learning about the colorful lives of our founders. Be indignant and act.

I told my audiences that they need not feel embarrassed if they did not know the answers to my questions. The curriculum in some schools and some state-adopted texts did not eulogize our founding fathers.

I hope you will read these questions. If you do not know the answers you may email me at <drdot@hal-pc.org> I will send a reply.

1. Which Virginian sounded the battle cry against King George of England?
2. King Charles, the Second, gave a wealthy Quaker land in America. The Quaker objected when the King wanted to name it after him, so King Charles, the Second, named it after the Quaker's father. Who was this Quaker?
3. What was the purpose of the First Continental Congress?
4. Who was the most famous of the Minutemen?
5. This man was bold, brave and his men loved him. He captured Vincennes and thus this region of the Northwest became under American control. Who was he?
6. Who harnessed alternating electrical current, making possible the widespread use of electric motors and long-distance electric transmission lines?
7. Her father said, "You are the black sheep of the family." She countered that some day he would take that back. At 15 she was a schoolteacher. Next she went to the Theological School of Boston University. First, the mind; then the soul, next the body. She received her medical degree from Boston University. From 1892 to 1915 she served as vice president and president of the National American Woman Suffrage Association. Who is she?

If you did not recognize these Americans, consider that the curriculum was changed. Without an understanding of the sacrifices of the early Americans and others we cannot appreciate fully our heritage. There are more ways than one to skin a cat. I don't advise skinning cats. However, there are ways in which you can include heroes and heroines in your curriculum. American heroines and heroes may be the topic of language arts assignments. If each child were to choose someone to write about, the essays could be copied and booklets made. .

You might contact the United States Historical Society. at http://ushs.org. The World Book and other encyclopedias have articles on the Revolution. Personally, I haunt second hand bookstores, Half Price Books and other places for biographies. Old encyclopedias make good history books.

Lynne Cheney, our vice president's wife, has written a

wonderful children's book, *America: A Patriotic Primer*. She gives the names and very brief summaries of the lives of many of our American heroines and heroes. Her book could be used as a diving board for finding more information. Please note that I use both heroes and heroines. I consider it a put-down to call women heroes.

The preceding comments are my own. I would like to add one by Joseph Addison, "Education is a companion which no misfortune can depress, no crime can destroy, no enemy can alienate, no despotism can enslave." In my mind, misinformation or lack of information is the present American tragedy.

Enough of history. Let us look at mathematics.

First, a recent example. A high school student who was having trouble in school brought his math test to me. The question he missed was: "Express one-half as a decimal." He wrote ".50." It was marked wrong. The teacher had shown him the answer key, which gave ".5" as the correct answer. Despite some logical arguments to the contrary, the teacher insisted that the only correct answer was .5. Obviously, teacher's math education was lacking. This is just one of many errors in grading that I have seen.

Years ago I went to visit Mexican schools. In Mexico City, second grade students were being introduced to algebra. They were eager learners.

To be aware of the price we are paying for the curriculum in use we only need to realize that when advanced placement students from the United States were pitted against the best in the rest of the world we bottomed out. The students from the United States ranked 15 among 16 nations. In calculus we were 14th among 15 countries. In geometry we touched bottom. To learn more about this embarrassment read Martin L. Goss's book, *The Conspiracy of Ignorance*.

It is not only the curriculum; it is the standards set by the teacher. I found out in one school that my principal and the superintendent did not approve of my method of teaching math. I fought, saying, "I have certification to teach and I have a contract to teach." But I was forbidden to tell my pupils that the "100 addition, 100 subtraction, 100 multiplication and 90 division facts" were the foundation for most arithmetic problems and they must learn them if they wanted to pass. I told the students that the principal would not allow me to set this requirement. To make it clearer to the students that learning the facts was easy I asked how many knew 100 words, then 390 words. If they could learn words, they could learn arithmetic. In six years of teaching that grade, only one child did not earn a perfect paper on each of the processes. The students were given 5 minutes to complete the tests for each of the four processes.

If you are tempted to argue that calculators make knowledge of the facts unnecessary, you need to realize that facts are even more important now. I am an educational diagnostician and my clients are both children and adults. "Mr. Kling" asked for my advice after he had been fired from his third job. His bid on a job was $50,000 under the actual cost. He wouldn't accept that if he had known the 390 Facts. He could have figured an estimate and known he had plugged in either a wrong number or the wrong process.

The U.S. Department of Education has stated, "Half of the 17-year-olds tested missed problems taught in junior high school."

Setting standards is part of the teacher's job. On my first day as a teacher of journalism in college I gave an assignment that was due the next day. I was appalled. These were juniors and seniors, and they should have known better than to give absolutely no attention to appearance. Some papers were in pencil; one was on a brown paper bag. I dramatically dropped the eyesores into the trash basket. I then set standards for the work. I suggested they could salvage their papers to use to rewrite more presentable papers. I helped some students to have access to typewriters. At the end of the semester over half had earned A's. I was called to the dean's office and told I was too easy a grader. When I showed the dean the term papers he agreed that the A grades were deserved.

At one of the top twenty universities, the entrance exam asked the student to "read pages 36 and 37" in one of their books. The first sentence on page 36 was a carryover from page 35, and the last sentence on page 37 was incomplete and was finished on page 38. Our schools condition students to do only what the assignment asks for. Few had read the beginning of the first sentence or the end of the last sentence. Without reading the entire sentences most couldn't answer the two questions. The longer a person is in school the more s/he relies upon the teacher to set the goals.

One of my graduate students went to the head of my department complaining that I would not tell her how many pages to read that night. He said, " Thank goodness."

Is the science curriculum any better? If it were better would the students learn more? I can answer that question with an example. A brilliant high school boy began crying after the third day of class. Notes were sent home informing the parents of the situation. He was in tears each day until Thanksgiving. To understand his situation you need to know his mother was from India. In her culture one did not say anything against his teacher. I had received "Bob's" records. After a few minutes of conversation, I asked him what was going on in his science class. He asked, "How can I learn from a teacher who doesn't know the difference between an atom and a molecule?" Bob couldn't learn from a teacher who did not know her subject. Bright children need teachers who know their subject matter. Bob was able to return to school after Thanksgiving armed with coping skills. Soon the principal and teachers wrote notes asking what had happened, as he no longer was crying at school.

In another school a boy got punished for telling his teacher that Chicago was not the capitol of Illinois. His comment to me was, "She has never traveled and I have been in 23 states. I couldn't let her lie to the rest of the class."

One reason for teachers not knowing the subject matter is that they are given classes to teach that are not in their field. A wonderful history teacher may be assigned to teach science. It happens.

The curriculum does not allow for individual differences. Bright children need challenging tasks. Choice of activities

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and methods of presenting an assignment will enable students to become involved and productive. One of my teachers had each of the students deliver the same eulogy. I couldn't bear listening to the repetition, and everyone was horrified when I recited, instead, a satire I wrote. It was worth the risk. A grade would never have given me the satisfaction of the response

Added to the shame of low scores when students from the United States are pitted against ones from other nations is the insult of teaching English as a "second language." If babies can learn English why can't older children?

Contrast this attitude with many European schools that teach two or more languages. I spoke in English at an International Mensa meeting held in Singapore. I was understood. There were members in the audience who spoke as many as seven languages. Our nation's mindset is a detriment to our culture. One of my former students was told she couldn't take Spanish in high school. The girl's mother came to me asking for help. I asked the mother if she had talked to the counselor. She said, "The counselor said 'Betty' was too dumb to learn Spanish." She grinned and then added that she had asked the counselor what dumb children in Spain spoke? Betty was not dumb. She was allowed to take Spanish and passed the class.

"Teaching for the test" is an often-heard phrase. Teachers are pressured to teach for the test. Schools are rated by the results of the test. So when David, his parents and I met with his teacher, the gifted program coordinator and several other school representatives, there was much discussion about the problems of advancing David two grades. The teacher who would have David in her class said he would have to read the same materials as the other children because the test score was dependent upon the texts.

David looked up from the college textbook on entomology that he was reading. He said, "If I have to read that baby stuff, I will deliberately miss every question on the test." That got their attention.

The school administrators saw the light and triple-promoted David. David had been a misfit with his age group. Although he was the youngest in the middle school, he had many friends and was elected to offices. He entered college early and is doing well.

One major problem with the curriculum is that there is very little flexibility. A number of gifted children become labeled ADHD and receive drug prescriptions for their "problem." For the bright child, movement is essential. Does any adult worker sit still for her or his eight-hour day? In my many years of teaching, I have told parents that they need not drug their children while I was their teacher. When children are actively involved in learning at their ability level, their energy is focused on learning, not escaping boredom.

The test becomes the stifling curriculum. Because of the importance of the test many teachers feel pressured to cheat. I have observed many methods of cheating.

One of my colleagues at the university explained her method of "helping" her students get a high score. I felt overwhelmed with sadness that she had succumbed to pressure.

One way this cheating can be prevented is to have a person who is not involved give the test.

Feedback is extremely important in learning. Immediacy of feedback is even more important.

One of the important services one gets from a computer is the spell check. I couldn't spell when I was in grade school. Dr. E. Paul Torrance broke the pattern of my previous teachers. Whereas they sprinkled the papers with a red "sp" mark over each error, Dr. Torrance inked in the correct spelling of each word I missed. It helped to see the correct spelling. The computer checks the word as you write. This has helped me to only have one word at a time to cope with. I have learned that my errors are usually vowels.

Homework robs the child of unscheduled time. It causes conflict in the family. Most adults do not bring their work home. Why should children have to? Work done without supervision sets children up to make repeated errors. Practice does not make perfect. Only perfect practice does.

All the king's horses and all the king's men couldn't put Humpty Dumpty together again. United we can mend the curriculum.

A dedicated person can overcome inertia and make a difference. For example, in the 1920s, policemen worked 12 hours a day and got one day off a month. A certain immigrant was a policeman with a mission. He went to the businessmen in town and asked for more time off. They said it was up to the state legislators to change the law. This policeman paid for transportation to Indianapolis and addressed the legislature. A devout man, he spoke passionately and reminded the lawmakers that even God needed to rest on the seventh day. The man who made the plea that changed the law was my father.

In the 1940s, a map collector got an editorial position on the staff of World News of the Week. Her first project was to convince the editor and publisher that the Mercator Projection did not give the most accurate picture of the world. She brought her collection to the office and three different projections were selected. When the first global projection was published, it became apparent that this was a necessary addition. A superintendent of schools in a large city wrote saying, "Everyone knows that the North Pole is at the top of the world. It doesn't belong in the center of the map." Using multiple map projections was my idea. My wonderful editor, Mr. Kreutzig, gave life to the idea. I was the person whose hobby changed the view children and adults had of our world.

The change from history and geography to social studies was detrimental to Americans and to our country. Curricula can be changed. In 1910, Abraham Flexner investigated the training of physicians. He found that many schools were "diploma mills." As a result of his work, many states closed down medical schools. When medical schools affiliated with universities the situation changed. Our educational system must be changed to prevent the deterioration of our culture.

Sources

I acknowledge and appreciate the assistance given by my associates, Donald Hawkins and Mary Weiler.

The statistics about America's place in world competition were gleaned from *The Conspiracy of Ignorance* copyright " 1999 by Martin L. Gross. His book is a rich source of information about our education system. I highly recommend this book to the movers and shakers of the educational world. It is time to change!

I would suggest each classroom have a copy of *America: A Patriotic Primer* copyright © 2002 by Lynne Cheney, published by Simon & Schuster Children's Publishing Division.

DOROTHY FUNK-WERBLO, consultant, psychologist, writer, and speaker in gifted education has served as state and local coordinator of gifted programs in Illinois and Texas. Her film, "Gifted Children: Our Untapped Resource," has won two international film awards. She also lectures on gifted education throughout the United States.

A POET IN A CLASSROOM OF ENGINEERS AND LAWYERS: IDENTIFYING AND MEETING THE NEEDS OF ARTISTICALLY GIFTED CHILDREN

by: Nanci Elf and Pat Rose

Gifted is. Those of us who parent, educate and get to know gifted children understand the simplicity and scope of this statement. Gifted children are different at their core from their non-gifted peers. They have a depth and breadth of awareness far beyond the norm, and therefore perceive the world differently. These differences require modifications to the school curriculum if gifted children are to realize their potential. In many cases, intellectually gifted children are identified at some point in their development, and attempts are made to meet their educational needs. Harder to identify, and perhaps more at risk, is the artistically gifted child whose measured IQ or math and reading scores may not make the cut-off for gifted programs. This child, a poet in a classroom of engineers and lawyers, also has needs for curriculum modification, particularly in the arts curriculum. She may have talents in creative writing, music, drama, visual arts, or all of the above. Why are these children so hard to identify? How can we find and serve those artistically gifted children who don't make the IQ cut-off in academic gifted programs? How can we help our gifted programs servethese children better? What modifications do we need to make to the arts curriculum to meet the needs of these children?

There are several reasons why gifted children can be hard to identify, and artistically gifted children harder still. Many educators and parents equate giftedness with elitism. They have the perception that gifted is somehow better than non-gifted, and balk at the idea of identifying some children as better than others. They claim that since all students are gifted in some way, there is no need for special programming. It is unlikely, therefore, that a child will be identified by an adult who does not want to identify her, or does not believe she exists.

Some educators subscribe to the "gifted is as gifted does" philosophy. These programs call themselves gifted programs, but are really advanced placement courses. They require reading or math achievement scores two years above grade level, and they teach the subject matter at an accelerated pace. Some children in these programs are not gifted, and others, though gifted, do not qualify for these programs because their achievement test scores fall below the cut-off. One mother asked me if her young son was gifted, and I asked what he was doing. She told me that he knew all of his numbers and letters, and could count higher than any of the boys in his playgroup. I responded by saying it was possible that he was gifted, but I really couldn't say unless I saw him solve problems. I illustrated my point with the story of a child of six months who was playing ball with her long-suffering black Lab, rolling it to him and catching it when it bounced off his big paws. When the dog moved and the ball rolled unexpectedly under the hutch, the baby reached over and picked up a toy hockey stick and used it to reach the ball. Clearly, this behavior is indicative of the child's abilities, and not something she learned to parrot to impress her parents. Care needs to be taken to ensure that each child's educational needs are met in a fair and appropriate environment.

Many parents do not recognize their child's giftedness because they don't spend time with average children, or because the child is gifted in the same areas they themselves are. A three year old who sings in perfect pitch may not seem unusual to a musical mother. Often, parents who are unaware of their own giftedness will be unable to identify their children as gifted. One mother had attributed her son's intellectual prowess to his father's brilliance, until the psychologist who tested him told her point-blank that when a child's IQ was this high, it came from both parents. She was stunned. She looked at her husband for some confirmation that the doctor was wrong, and he told her she was the only person who didn't realize she was gifted.

Many educators do not know how to identify gifted children, especially artistically gifted ones. At the risk of stating the obvious, the American classroom is an academic environment, and is therefore best suited to identify students who deviate from the academic norm. Creative or artistic exceptionality may not be noticed in the academic forum. Teachers may be using the kindergarten play time or center time to catch up on paperwork, and may not notice the little girl who uses blocks to build—not a city, but a giraffe, complete with ossicones. There may not be enough time in the curriculum, with the prevalence of curriculum push-down, to allow for both play and academic pursuits. Artistically gifted children are often living in a highly descriptive and humorous world, rich with imagery, where it is perfectly acceptable to call the drain in the

bathtub "The Evil Slurper," the tripod telescope "The Eye Spider," and the fairy tale character who spun straw into gold for the miller's daughter "Crumpledlipskin," because he made such a mean face when he came back for her firstborn child. One reason many artistically gifted children are hard to identify is that we simply don't have the time (given the pace at which we live our lives and teach our students) to listen to them long enough to observe this kind of creativity.

Gifted children can also purposely hide their abilities to fit in better or because they think are doing it wrong. I have personally observed a three year old child in a Kindermusik class, who sang in perfect pitch at the beginning of class, and was the only child in the class of twelve that could clap on beat. The teacher introduced a segment in the class where she sang two or three notes into a toy microphone, and the child was supposed to sing the notes back to her. The first time she tried it, the child matched the teacher's notes perfectly in pitch and length. The other children were working on repeating the correct number of notes, and overcoming their shyness enough to sing for the teacher. About half of the class was still bringing a parent up to the microphone. By the end of the semester, the girl who could sing in perfect pitch was no longer doing so. She mimicked the other children's less mature singing, even to the point of bringing her mother to the front of the room with her. Moreover, her behavior became silly in class. The mother asked the teacher if she might not be better suited for an older class. She pointed out that her daughter had been able to match the teacher's notes, and now was no longer doing so, but was exhibiting silly behaviors. The teacher responded by saying that whether or not the girl could sing, there was no evidence of that now, and she never moved any child up unless they had a birthday. She also saw the silly behavior as evidence that the girl was not ready to move up, even if she did have a birthday. The mother withdrew her three-year old and enrolled her on a trial basis in a Kindermusik class for older children, with a teacher who had experience teaching gifted children. The little girl's silly behaviors stopped, the singing came back, and she once more loved music class.

Artistically gifted children may be harder to identify because their very creativity may be threatening to the Puritan values that form the basis for this country's education system. Artistic children are very sensual. They are children who value beauty and texture and scent, in a culture that was founded on the idea that cleanliness is next to godliness. They are good at something considered a leisure time activity, in a country founded on the Puritan work ethic. Fathers are reluctant to encourage their sons to pursue artistic or theatrical interests, because they want them to grow up and earn a decent living. They are unwilling to bet on what they perceive is the artistic lottery. When people are driven to create, in whatever their chosen field, they will find a way to earn a living.

Artistically gifted children growing up in families that support them are at a distinct advantage. When Mary Engelbreit was young, her mother called her away from a drawing to set the table for supper. Mary's younger sister volunteered to do it for her, because Mary was working. I would expect to see this kind of support if Mary was studying for her medical school entrance exam, but I am delighted to hear of a family where art is elevated to work status. When artistic talent is given its due, the artistic lottery stops being a game of chance and becomes instead a journey. It may take some artists more time than others to complete, but it is one that offers every artist a chance to earn a living eventually, if that is indeed his goal.

To identify artistically gifted children, we need to look for certain behaviors. Pupils who are gifted in art and design often are driven by ideas, flights of fancy and humanitarian concerns. As youngsters, they frequently push boundaries—for example, by using toys or art supplies in new ways. In junior high school, they take melodrama to a whole new level, as Robin Williams' father found out one afternoon. He knocked on the bedroom door and asked Robin what he was doing. Robin answered, "nothing...dragging myself through adolescence." As high school students, they frequently shine in geometry rather than algebra, often solving proofs in ways that amaze their teachers. In grammar school, they may show a passionate interest in the world of art and design, and are able to talk at length about why a particular piece of artwork speaks to them. They may critique their own artwork, saying that if they'd only used the right shade of bluish gray, the sky would have looked right for their thunderstorm picture. They are often interested in how an artist got a particular effect, why they used the media they used, or what the artist was trying to say. I remember watching a four year old girl at the opening of The Elmhurst Art Museum. She stood and critiqued an ink-and-coffee drawing by Eleanor King Hookham, artist and founder of the museum, making connections between it and her own artwork. Eleanor, who was mingling with the guests, observed her and listened covertly, then introduced herself to the little girl and answered all of her burning questions on technique and the artworks message.

These students are driven to create in visual form. Any parent who has ever tossed a crumpled straw wrapper onto a plate as it was being cleared from a restaurant table, and has heard wails of protest from her offspring that she had thrown out a lamprey, canoe, cobra, teleporter, or some such creation, is right to suspect she may have an artistically talented child on her hands. This persistent desire to create in visual form is the strongest indicator of artistic giftedness. Pupil self-identification is a valid method of identification for inclusion in an art program for the artistically gifted. They may be driven to create in musical form, constantly singing or humming to themselves or their playthings. Storytelling may be their inclination, as well as classical music for the images it produces in their heads (Disney's Fantasia may be a particular inspiration). They may dream deeply or vividly, and insist on sharing their dreams while you are still hitting the snooze alarm. They may respond theatrically to the joy of an autumn day, or a fireworks display, needing to dance the leaves or dance the fireworks. Sometimes, they even dance the sermon in church.

A child's sensibility can be an indicator of artistic giftedness. His capacity to get completely involved with something and respond deeply and emotionally to things that other children may miss is often a sign of artistic giftedness. I am reminded of the nine year old who visited the Grand Canyon, took in the splendor and remarked about the chipmunks. Her parents interpreted her comment as evidence that she was too young to appreciate the Grand Canyon, when

in fact she appreciated it down to its smallest wonders. I have a photograph of a second grader, taken during an in-school field trip where the children were learning felt making as part of a social studies project in an Asian studies unit. They were building a yurt or ger, a Mongolian felt dwelling, and making the felting the wool cover. We had rolled out wool onbed sheets in the cafeteria, taking up a space 5.5 feet wide and 22 feet long. We then squirted it down with a warm soapy felting solution, covered it with plastic wrap, took off our shoes and begun to stamp, dance and squish the puffy wool into felted submission. In the midst of this productive chaos of fifteen joyful leaping second graders, a gem of a teacher, two room moms and yards of wool, a boy knelt. He was wet to the knees and completely absorbed in the small bit of wool he rubbed between his fingers. I snapped the picture, the quintessence of a gifted boy's sensibility.

We need to put qualified teachers in creative environments with children, so that they might be able to identify artistically gifted students and track them into appropriate programs to learn their craft. The in-school field trip is an excellent forum for this to take place. One goal of Art Odyssey, a program being developed to meet the needs of artistically gifted students, is identifying them through in-school field trips designed to support and enhance the social studies curriculum while providing enriched art experiences and exposure to visual arts, theater and music, in a multicultural forum.

Artistically gifted children can be identified through educational testing, in some cases. Visual-spatial learners are often artistically gifted, and learn information in intuitive leaps, rather than in the gradual accretion of isolated facts. For this reason, they can sometimes be labeled as learning disabled or socially immature, if they are compared to classmates who have more linear, gradual learning curves and they haven't yet made a leap on a particular concept. Their learning is holistic and occurs in an all-or-nothing fashion. Strong indicators of the visual-spatial learning style are: The Block Design Sub test of the *Wechsler Intelligence Scale for Children*, The Abstract Visual Reasoning section of the *Stanford-Binet Fourth Edition*, the Ravens *Progressive Matrices* and *The Mental Rotations Test*. High scores on these tests can suggest potential artistic giftedness, even though the child might not be producing great art.

Most programs for artistically talented students use a combination of parent, student, or teacher nomination, creativity tests, portfolio review of student work, interviews, or locally designed art tests for selection to the program. Portfolio studies of children's artwork corroborate that artistically gifted children have a lifelong interest in producing artwork, progress through the stages of childlike expression in a richer and more rapid manner, and develop skills in handling the tools of their art at a higher level than expected for their chronological age. Portfolio studies have also shown that a sympathetic home environment is extremely stimulating to artistic growth.

Parents can begin valuing artistic talent as early as a child is capable of leaving his crayons in a mess on the living room floor. Telling a child to take care of his crayons because his art is important sends a far different message than, "pick these crayons up or they go in the garbage!" Parents can expose their children to art and music and make connections to the art they view and their own feelings for the work. Dance the sunset with your daughter. Connect your son's Lego buildings with Piet Mondrian's *De Stijl*. Provide art supplies and his own pair of good scissors. Find mentors for your children. Explore programs like College of Du Page's Talent Search, Evanston's Art Encounter, Arts Connection, Worlds of Wisdom and Wonder, and Intermesh Arts. Find appropriate social groups, where your child's contributions are encouraged and acknowledged. If your musical daughter has no interest in practicing songs that someone else wrote, find a piano teacher that will teach her how to write down the notes for the songs she composes herself. When your high school senior wants your opinion about whether he should follow his heart and study acting in school, or take the safe way and study business, tell him that he is what he is and, whatever he chooses, he should know in his heart that he is always an artist. To quote one gifted educator, "it's not like God was trying to make a duck, ya know."

Above all, look for programs that incorporate ALL of the arts—creative writing, drama, music and visual arts. Look for those that offer interdisciplinary fine arts classes, where students can combine the arts for their own use. Look for independent study programs that don't put too much emphasis on prescribed curricula, but provide opportunities and give credit for self-initiated learning. Look for an art program that identifies and monitors children from an early age, and provides a broad, balanced curriculum that exposes children to a variety of media and art processes, but also exposes them to new ideas and other cultures. Look for programs that teach young artists how to critically evaluate their own work, identify their weaknesses, and work to improve them. Look for programs that offer mentoring. Introduce your young artist to every working artist you can. Most are delighted to inspire young people, and talk about their art. Look for programs that provide challenges beyond the traditional range of art and media, interdisciplinary arts programs that incorporate visual and performance arts with creative writing and technological studies.

Look for programs that build self esteem by allowing children to struggle. Self esteem increases when a child is successful at something she perceives is hard—like tying her shoe for the very first time. Self esteem plummets when a child is overly rewarded for doing what comes too easily. Think how you would feel if you received the Nobel Peace Prize for tying your shoe; you would feel like an impostor. That feeling leads to loss of respect for the prize awarders and loss of self esteem for the person receiving the prize. Self esteem also plummets when a person's struggles receive no recognition, like the child who puts in extra effort on a writing assignment, only to be criticized and marked down for messy penmanship.

Children need programs that challenge them and that modify the content, process, environment, and product of the curriculum. Artistically gifted children may need modifications to the academic curriculum as well as to the art curriculum. They need to make interdisciplinary connections. The yurt project was successful because it connected the art of the Mongolian people with social studies, geography, science, economics and math. The students looked at wool under

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microscopes to understand the felting process, touched on chemical properties such as pH factor, and learned that felting solution has to be alkaline in order to work. They studied the geography of the region and learned that the mountainous terrain of the country supported grazing animals, rather than crops, and connected this to their Native American studies. They theorized correctly that the Mongolians were nomads rather than agriculturalists, and that their houses had to be portable to meet their needs. They learned that Mongolians did not have access to deer, as the Native Americans did, so that whatever leather they needed had to come from their sheep.

A short lesson in economics showed them the wisdom of using a renewable resource, such as wool, rather than sheep leather, in the making of their homes. The students learned a real-life use for math-to estimate the area of wool needed to accommodate a 30-40% shrinkage factor when felting. They learned that the yurt itself is a marvel of physics. When forces pushing the roof downward, the internal structure, or khana, outward, and the belly band inward are perfectly balanced, the yurt stands. Artistically gifted students thrive on connections like this.

The biggest obstacle to incorporating connections like this into the curriculum is time. How can we build more time into an already packed schedule? Green Fields Country Day School in Tucson has built an Interim week into the curriculum. The week allows students to broaden and expand their studies, including the interdisciplinary connections so dear to gifted students. Each teacher or team of teachers heads a week of study, often in areas of interest outside the subject matter they typically teach. Students sign up for these programs in advance, and the teacher might have a range of ages and abilities of students, bound by a common interest or passion. One highly successful Interim Project encompassed a study of the pottery of the Pueblo Indians of the region, a real clay-dig, a connection to earth science, and hand building of real pottery, which they pit-fired in the Hopi Indian tradition on a subsequent Saturday. Another involved the building of a geodesic dome that eventually became the new art building.

Many schools do not have the funds for an Interim Week, and have to find other ways to build time into the curriculum. Some schools find that switching to a six rotating schedule, instead of the typical five day work week, allows more time for interdisciplinary programming. These schools take the school calender, minus holidays, assemblies, and parent/teacher conference days, and assign each of the remaining school days a letter from A-F, repeating the pattern until the last day of school in June. A teacher who previously had to cram all subjects into a five-day schedule, now has six days to fill, leaving room for a half-day interdisciplinary period at least once every six days. The interdisciplinary programming can spring from any of the academic areas or art curriculum. The Art Institute Teachers Center is a wonderful resource for cross-curricular activities.

Teachers in schools where the schedule cannot or will not be altered can find time to meet the needs of artistically gifted children. Compacting the curriculum works well for these students. Educators build time for their pupils to practice new concepts into the schedule. Gifted students will not need time to practice concepts they have already mastered, and tend to balk at the repetition of practice. They can use this time to deepen and expand their understanding of the subject, to make those interdisciplinary connections, and to work on independent study projects. Assign or have each child choose a theme or object for independent study. Over the year, as the child finds himself with free time, have him return to the object and draw or paint it. If he is in a painting class, have him paint Monet-like paintings, the same object at different times of the day. Andrew Wyeth was a sickly child, and was taught at home. His father, N.C. Wyeth, a successful illustrator of adventure stories brought Andrew into the studio and gave him a real pirate flintlock pistol to draw. He had to draw it over and over again, from different views, using only charcoal. The strange result of this was that the more he drew the pistol, the more interested he became.

Teachers need to consider learning process when modifying the curriculum for artistically gifted students. While some learners need step-by-step instruction in order to benefit from art education at all, gifted learners need to discover the process for themselves. This can be described as under-teaching and is illustrated in this example of a multi-level class working on color theory. In previous lessons, the students have completed a value scale in graphite and a color wheel. Building on this knowledge, the teacher introduces the concept of complementary colors, and suggests that the students find out what happens when they mix complementary colors, say orange and blue, and build a scale to illustrate what they have learned. She leaves paint and brushes with the students, and works with the other students in a step-by-step process. They set up three equal-sized mounds of orange paint; then they mix one drop of blue into thefirst pile, two into the second and three into the third. They take three mounds of blue paint, mix one drop of orange into the first pile, two into the second, and three into the third. They check their colors to be sure they are distinct from each other and then attempt to mix equal amounts of blue and orange. They paint samples of each color on pre-cut rectangles, then arrange them on a complementary color scale, so that the bright orange is first. The orange samples become progressively muted; the half and half or neutral sample is next, followed by the most muted blue sample, the middle muted sample, the slightly muted blue sample, and finally the bright blue sample out of the paint container.

The teacher then calls the class together, introduces vocabulary: muted, bright, neutral, and complementary. She has them check their color scales against a teacher sample and work to correct their scales, if needed. She shows a poster of Monet's Impression, Sunset, and asks if the students can figure out how Monet used his knowledge of color mixing in the painting. Students discover that muted oranges tend to recede and brighter ones pop forward, adding depth or perspective to their paintings. They add this to their knowledge of perspective drawing. In subsequent lessons, the students add black to each of the seven colors from this lesson, producing tones and white to each of the seven colors, producing tints. She then challenges the students to create a painting using only the twenty-one colors they have worked with, and showing some sense of depth in their paintings. The teacher may assign a theme if the students need one. Seascape is a very good one for this color scheme. I have seen students push the limits with this,

producing bathtub scenes with knees and toes, teacups with soap bubbles and tiny sailors, close-ups of toes on the beach with the sea swirling up to them and a crab within pinching range, as well as the more traditional sea at sunset pictures.

Art teachers will often need to modify the environment to accommodate a wide talent range in the classroom. They may get the school behavior and academic problem students along with those who have high interest and talent in art, and may have students who fall into both groups. Ability grouping, or cluster grouping, works very well in a multi-level classroom of this type. For centuries artists have met with other artists in cafes and other informal meeting places, because just interacting with other creative people enriches one's own creative process. When a teacher is busy handling discipline problems or teaching basic skills at one table, the higher functioning students may be able to offer each other constructive aesthetic criticism. Grouping visual-spatial learners together will also save the teacher time in instruction. She can take explain a concept on one half of the board, and draw, or have one of her students draw a visual representation of the concept on the board nearest the visual-spatial learners. Students need a classroom atmosphere where they are allowed to question, exercise independence and use their creativity.

Sometimes, further modification of the classroom environment is necessary. Artistically gifted students are sometimes kinesthetic learners. Kinesthetic learners have a high need for movement and learn best when allowed to move around. When the subject matter just doesn't allow for the amount of movement kinesthetic learners need, an unconventional solution may be in order. A teacher can try replacing classroom conventional seats with physioballs. Physical therapists have been using these large-diameter inflatable balls for years in the special education classroom to help strengthen the core muscles of their patients and assist in posture training. As the child sits on the ball, a variable and shifting surface, her muscles work to keep her erect and become stronger. In the regular or gifted classroom, the kinesthetic learner needs to be in perpetual motion. When she sits on the physioball, that need is met on a subtle and intermuscular level, and the need for jumping out of her seat is all but eliminated. Teachers who cringe at the thought of introducing balls to a bunch of bouncy second graders need only try the experiment for a week. Once the novelty wears off, they will find the children more apt to stay in their seats, and better able to pay attention due to improved posture and better breathing. One mother who tried this experiment at home, replacing the chair in front of her computer, reported feeling like she had a third more lung capacity sitting on a physioball than she did on a regular chair. Adult top-end balls range from 25 to 40 dollars, but they can be found for much less in the sporting goods section of any discount department store. Children up to third grade can probably use large inflatable play balls, for about three dollars apiece. It is a small investment, and worth the expense, if you are willing to experiment with your classroom environment.

Finally, teachers need to modify product for artistically gifted students. Although all gifted children need art experiences as rich in ideas as they are in studio experiences, those with artistic gifts need to use their image-making abilities to think about and explore the world of ideas which reside in the history of art and the realm of aesthetics. Teachers can encourage students to demonstrate what they have learned in a wide variety of forms that reflect both knowledge and the ability to manipulate ideas. Products should synthesize rather than summarize information, and should include a self-evaluation process. In a painting class, a student can include a paragraph with his painting that explains what he was trying to say, and how he used the elements of art and principles of design to get his point across. He can evaluate how well he accomplished that, and what he would do differently to enhance the product and clarify the message. If he was exploring a particular concept, the use of muted colors in a painting, for example, he can compare his work to others, and evaluate it in terms of the elements of art and the principles of design.

Gifted children are. Artistically gifted children are. They are not better than other learners, they are different. They need a curriculum that supports ALL the arts. They are the Steven Spielbergs who enrich our lives; the Robin Williams who make us laugh; the Mary Engelbreits who touch our hearts and brighten our homes; the Isadora Duncans who teach our souls to dance; and the "Fiddler[s] on the Roof" who keep us going. We turn to them, along with our firefighters and clergy, in times of national crisis. They are entitled by law to a free and appropriate education if they are to realize their potential. It is up to those of us who parent and educate to seek them out and provide that education. What kind of a world are we left with, if we leave them behind?

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ART ODYSSEY

Art Odyssey is the brainchild of artist and educator Pat Rose. Her vision is to create a system of programs in the arts that provides artists of any age a pathway to success. Art Odyssey is being developed to dispel the myth of the artistic lottery and give youngsters in the Midwest with talents in art, music, drama, dance and creative writing the opportunity to meet with other artists and develop their craft. One facet of Art Odyssey is the in-school field trips program. The field trips are designed to support and enhance the social studies curriculum while providing multi-cultural art experiences for all the students and a means to identify young gifted artists.

PAT ROSE, Artist, is the mother of a gifted boy, a teacher of visual arts, theater, language arts, and social sciences. She earned her Bachelors of Arts in Art History from University of California at Berkeley, and her Master of Arts in Visual and Theater Arts at Roosevelt University. Pat is the founder and Director of Art Odyssey.

NANCI ELF, Yurtmaker, is the mother of two gifted daughters, a writer, a fibers artist, and art educator. She earned her Bachelors Degree in Art Education and Special Education from Wayne State University. Nanci is the Director of the In-School Field Trip Program for Art Odyssey.

A VISIT FROM A POET AND OTHER LITERARY DEVICES

by J. Christine Gould

They sat before me, 33 eighth graders, 3rd period Honors English. They were easily the brightest Honors English class I had ever taught and in many ways the most difficult. Sean, my most gifted student, occupied a corner seat on the back row. He was reading, as usual. Though he had an IQ of 172, he regularly brought home a report card that featured D's and F's. If he liked a class, he easily earned an A. Unfortunately, he only rarely liked a class and produced sporadically-making him an underachiever and a challenge for the adults around him. He was just fine with things as they were (Davis & Rimm, 1998; Schmitz & Galbraith, 1985). There were also several gifted writers in 3rd period Honors English and several outstanding debaters. They were all accelerated, advanced students, but Sean was the most insightful and intense of the group.

"Class," I began, "next week, we will begin our poetry unit." I was completely unprepared for their reactions.

"I hate poetry."

"It's boring."

"Rhyming is for geeks."

"Well, then you ought to be good at it!" There was widespread giggling.

"Can't we do something fun for a change?"

Even Sean, who I had expected would love studying poetry, had the same look of disdain on his face that the rest of the class had. I was stunned at their uniformly negative reaction. Of all the students in the school, this group of gifted writers should love poetry. Yet, they didn't. They should be able to understand the emotions and subtle nuances expressed by poets. Yet, they didn't want to look beneath the surface of the writer's words. They saw poetry as something boring, something for old ladies, but not for young, cool, teenagers. Therefore, it was not for them.

I knew I had to find a way around their negative ideas or the next few weeks would kill whatever love of poetry I hoped still existed deep within them. My first task was to change their attitudes about poetry. Iambic pentameter and other literary devices could wait. Finding their love of poetry had to come first.

I'd had an idea for some time and this seemed like the perfect opportunity to put it into action. Remembering back to the days when I first began to love poetry, I realized it was when I knew something of the poet's life that the poet's words began to have meaning for me. I thought about how I could make that happen for my students and an idea gelled. I left school that Friday afternoon with a plan in mind. It was a busy weekend finding a costume and doing my research because on Monday morning, 3rd period Honors English, in front of 33 poetry-hating eighth graders, I was about to become Emily Dickinson.

Becoming Emily

It has been rumored of Emily Dickinson that she only wore white - at least later in her life. I found a long white skirt and a frilly blouse that suggested the time period and dutifully styled my hair like Emily Dickinson's. At the end of second period, I wrote a note on the blackboard to my 3rd period

class. It said, "Take your seats and talk quietly in your work groups (work groups consisted of three or four students that worked together on projects). You will be having a visitor today. You may ask questions about that visitor's life." Since we had just finished a unit on the newspaper, my students knew how to question like reporters. I then hurried to the Faculty Women's restroom, where I began my transformation.

Upon my return, I found my class seated and talking quietly—a nice surprise. I said, "I'm Emily Dickinson, a poet. You may ask me questions about my life. First, talk in your work groups and develop several questions that ask me about things that have happened during my lifetime. Then, you may ask me your questions. You may call me Emily. I might recite some of my poetry for you." They looked at me quizzically for a moment and then began to talk in their work groups as they developed their questions. They were tentative at first, but soon began creating good lists of questions.

Sean's work group began the questioning and Sean was the spokesperson. "So, Emily, are you dead or alive and if you're dead what killed you? Were you sick or in an accident or just really old, like around 40?"

I ignored his suggestion that 40 was old and answered, "I died on May 15, 1886 at the age of 55. I was ill."

More questions followed.

"When were you born?"

"I was born on December 10, 1830."

"Where did you live?"

"I lived in Amherst, Massachusetts."

"Did you have any brothers or sisters?"

"Yes, I had a brother named William and a sister named Lavinia."

"Lavinia? That's a weird name. Were you married? Did you have any children?"

"I never married and I had no children, but for many years, I corresponded with a man named Thomas Higginson and several other men."

"Did you have a job, I mean, what was your career?"

"I didn't have a job, although I was educated at Mount Holyoke Female Seminary. I began to write poems around 1850. I was a very private person and during my lifetime only a few of my poems were published. I was a recluse. If visitors came to the house, I often stayed in my room and didn't greet them. Sometimes, I talked to them through the bedroom door. I lived in my house and almost never ventured outside. I loved to look out my bedroom window and watch children playing. Sometimes, I lowered baskets of food out of my bedroom window for the children. I busied myself by writing poetry. I didn't give my poems titles and I simply placed them in a dresser drawer. At the time of my death, there were, oh, maybe, 1,700 poems that I had filed in my bedroom drawer. A few years ago, I began to wear only white and that's why I'm wearing white today."

"Why white, Emily? Why did you wear only white?"

"There has been a lot of speculation about that, but only I know the reason and I'm not telling." I began to recite:

This is my letter to the world,
That never wrote to me,
The simple news that Nature told,
With tender majesty.

"So that letter to the world that never wrote to me - that's because you didn't go out? You were scared to go out? My aunt was kind of like that. So the world that never wrote to you that was like nobody calling you? Is that what it means?"

I'm nobody! Who are you?
Are you nobody, too?
Then there's a pair of us - don't tell!
They'd banish us, you know.
How dreary to be somebody!
How public, like a frog
To tell your name the livelong day
To an admiring bog.

"Why do you think you're nobody? When you say 'How dreary to be somebody?' is that just to cover up your real feelings about yourself? What's a bog, anyway?"

A word is dead
When it is said,
Some say.
I say it just
Begins to live
That day.

"I asked my sister, Lavinia, to destroy my writings if I died and she agreed. She destroyed letters I had written, but she didn't destroy my poems for some reason. She had them published later after my death. After the publication of my poetry, I became posthumously famous. I need to leave you now, but while I'm gone, I want you to take a look at this list of poets on the blackboard...because part of your job over the next two weeks is to become one of these poets." I unveiled the list and left quickly for the Faculty Women's restroom to leave Emily Dickinson behind for a while. My fourth period class would be here any minute.

As I was leaving the room, I heard one student ask, "What does posthumously mean?" The answer came from Sean, "It means after you die. See, Emily Dickinson became famous after she died."

"Too bad she couldn't be famous while she was alive."

Sean answered, "She would have hated it. She was way too private to want to be famous. She wouldn't want people knowing about her life or anything like that. She would have felt her privacy was being invaded."

He was right.

Upon my return, some work groups had already selected

their poet. Their selections were made for reasons I didn't fully understand. I was almost 40 and apparently, I wasn't supposed to understand . One group of boys selected Ralph Waldo Emerson because one of his names was Waldo and that was "totally radical and embarrassing at the same time." Edna St. Vincent Millay was selected because her name was beautiful. That bastion of grammatical rebellion, e. e. cummings, was selected because his name didn't have any capital letters and "I don't like making capital letters, either, but does he put a heart over his i's, too? Because I like to do that." I already knew she liked to do that.

A beginning list of poets in no particular order...

Maya Angelou	Robert Browning
Edgar Allen Poe	Walt Whitman
Dr. Suess	Elizabeth Coatsworth
Shell Silverstein	Alfred, Lord Tennyson
Hanry Wadsworth Longfellow	Robert Louis Stevenson
Rudyard Kipling	Edna St. Vincent Millay
William Blake	T.S. Eliot
Carl Sandburg	Ogden Nash
William Butler Yeats	Lewis Carroll
Robert Frost	e.e.cummings
Ralph Waldo Emerson	William Wordsworth

The Life of a Poet

Our explorations began. I gave each work group three tasks. They were to research a poet to learn about that person's life. They were to create a presentation in which one person became the poet. As part of that presentation, they were to conduct a poetry reading and set the poems to music. They were also to create an informational bulletin board about their poet. The rest of the class was to use their reporting skills to find out about the poet's life.

Tuesday morning, we began with a trip to the library/media center. I had alerted the librarian earlier that my class would be coming to research poets. She kindly pulled together various resources along with some extras in case a work group wanted to change poets.

Wednesday morning found us in the computer lab using Internet resources to find out about our poets. There was a surprising amount of information available on poets through this resource.

Thursday and Friday, I set out materials and let the students work on their bulletin boards. I purposely didn't give the students much direction, I simply provided a place for the work groups to put up their bulletin boards, the opportunity to use the die cut machine, and materials. The only requirements were that the bulletin board had to be informational and had to include some of the poet's work. As it turned out, I didn't need to provide much direction. The students took over and created wonderful, visual displays. Several mornings, kids from other classes wandered in before school started to look at the bulletin boards.

The following Monday, Tuesday, and Wednesday were used for practice sessions. I supplied the tape recorders; the students chose the music and words they wanted to represent their poet. As they were working, I asked a lot of "why" questions. Why did you choose this music? Why did you choose this poem? Why did you choose to emphasize this part of the poet's life? Most of the time, they could answer the why questions. If they couldn't answer immediately, I returned to them the next day. Their answers showed a remarkable level of understanding of important events in the poet's lives.

Thursday and Friday were the assigned presentation days. At the end of class on Wednesday, I gathered everyone together and we drew numbers out of a hat to decide the presentation order. I let them negotiate with each other to change the order after the initial drawing was complete.

At the beginning of class Thursday, the room was buzzing with excitement. Students were talking to each other, exchanging ideas and discussing who had brought what from home. Some parents came by to watch their children's presentations. I was happy to have the parents visit. Several other students came from around the school building and requested permission to watch their friends become poets. Three boys from the basketball team were among those requesting permission to come and hear a poetry reading in my classroom. I was more than delighted about that request. My answer was, "We'd love to have you visit today."

The first presentation was scheduled to begin in a few minutes. Sean was going to become the poet for his work group. I gave him the hall pass to go change. He disappeared and a few minutes later, Ogden Nash entered my room. He was a rather unprepossessing man with rimmed glasses. The questions began.

"When were you born?"

"I was born in 1902?"

"Wow, you are a really old guy unless you're dead. Are you dead?"

"I died in 1971."

"Did you have a job? What was your career?"

"I was a satirist. I was a person who uses wit and irony to talk about the human condition."

Then, Sean's work group started a home-made piano recording of Dueling Banjos and he began to recite:

Old Men

People expect old men to die,
They do not really mourn old men.
Old men are different. People look
At them with eyes that wonder when...
People watch with unshocked eyes;
But the old men know when an old man dies.

As the presentation continued, Ogden Nash became a real person to 3rd period Honors English. We enjoyed his satire on the human condition. Before he left that day, Ogden Nash favored us with one more selection. He cleared his throat, straightened his collar, took a deep breath and with a sincerity

that drew us all in, recited:

Ode to a Baby

A bit of talcum

Is always walcum.

Oh, and they liked the banjo music, too.

On the way to lunch, I overheard two of the visiting students talking. One said to the other, "Did you hear Sean? He was Ogden Nash, a poet. I thought that baby poem was really funny. Ogden Nash is a satirist, you know."

A few weeks later, we did begin learning about iambic pentameter and various other literary devices. Sean stayed after class one day and as he was slowly making his way out of the room he said, "Did you know there is an Emily Dickinson International Society? I'm going to join it. My mom said I could."

Maybe I'll join, too.

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CREATIVE APPLICATION: A NECESSARY PART OF A COMPREHENSIVE CURRICULUM IN THE GIFTED MIDDLE SCHOOL GENERAL MUSIC CLASSROOM

By Lois Veenhoven Guderian

During the last four decades, philosophers, psychologists and arts educators have devoted research and other efforts to the study of creativity and creative thinking. The results of this research have brought about an awareness, if not an already established belief, of the benefits and importance of providing students with opportunities for creative application of learning in the music learning environment (Lapp & Lundgren, 2000-2001; McPhearson, 1999; Reimer, 1987; Reimer & Smith, 1992; Vega, 2001; Webster, 1991; Wolf & Pistone). In addition, studies in cognition have brought about a better understanding of the interrelational qualities of the arts, those things that are common and beneficial characteristics inherent in all of the arts (Reimer & Smith, 1992).

The current wealth of literature surrounding creativity and cognition has brought several educational considerations to the forefront of music education. The majority of these considerations are directly related to curriculum content, or the "what", "why" and "how", we teach, what we teach, in a music learning environment. In all education, an understanding of the role creative thinking and creative application play in developing aesthetic perception and musicianship can help in formulating a music curriculum that combines, interrelates, integrates and synthesizes many elements through musical experience. In gifted education, a curriculum of this nature for the middle school general music classroom, is imperative.

People on all levels of age, ability, and understanding have a desire to express music in their own unique way, whether by application, performance, listening or creating (Richardson & Atterbury, 2001). In the gifted individual, opportunity to apply knowledge in creative ways becomes a necessity, as a high degree of creativity is one of three broad characteristics of giftedness (Smutny, 2001). E. Paul Torrance believed that creativity was a natural process arising from the need in individuals to satisfy the feeling that something was not complete; therefore, the capacity to be creative is possible in all human beings. (Millar, 1995). Characteristically, gifted individuals have advanced intellectual abilities and increased levels of sensitivity (Clark, 2002; Smutny, 2001). They are able to grasp and process information quickly and easily, thus advancing to abstract levels of thinking more quickly than other individuals. Gifted individuals demonstrate a fascination with ideas and intellectual curiosity to know why and how things are the way they are. They have an ability to learn in an integrated intuitive manner and often grasp the total concept before the end result (Clark, 2002). Through exploration and guidance, gifted individuals quickly see and appreciate the interrelational qualities that exist between things. They enjoy and are capable of arriving at the higher level thinking skills of evaluating, analyzing and synthesizing, and those that involve problem solving and creative and critical thinking (Smutny, 1990). They

are easily bored in classroom settings that require convergent thinking and little divergent thinking.

Characteristics of Creative Thinking and Aesthetic Cognition

All human beings have creative potential and a need for creative expression. It is part of what makes us human. Although we often think of creative expression in relationship to the arts, creative expression can take many forms. Choosing wallpaper for the kitchen, presenting knowledge in an interesting but understandable way, managing time when one receives more responsibilities, all involve creative thought. Creative thinking is problem solving (Banton & Colley & Down & Pither, 1992; Csikszentmihalyi & Schiefele, 1992). It requires the higher thinking order skills of analyzing, synthesizing and evaluating (Smutny, 1990).

In the process of creative expression, creative thinking is in constant use. Decisions are being made, whether consciously or in the flow of subconscious, emotive expression (Csikszentmihalyi, M. & Schiefele, U. (1992). The process of creative thinking and expressing is all engaging. It brings about perception and knowing (Reimer and Smith, 1992). Creative expression is one of the most fulfilling and positive of all human experiences. It reinforces knowledge and adds depth to understanding. When opportunities for creative thinking are provided for students through creative application of learning in the music classroom on a consistent basis, general music class becomes both a highly desirable subject and one that brings together many areas of understanding.

The arts involve a special way of thinking and knowing, of involving the intellect and imagination that is important to humankind's knowing, and important to his intellectual, emotional, physical, and even spiritual development and well-being. Artistic knowing, or one can call it aesthetic cognition (Reimer and Smith, 1992), is gained through the study of the elements of art and learning to compare and analyze the treatment of these elements between various works. Aesthetic cognition engages the mental functions of perception, memory, thinking, imagining and problem solving. Understanding interrelationships, depth of learning, emotive reaction and response, and a sense of fulfillment and satisfaction are all products of aesthetic cognition (Reimer and Smith, 1992). The opportunity to develop aesthetic cognition, can, and should be the opportunity of every human being. Organization of learning that is progressive, sequential, and builds on previously learned knowledge, is effective in helping to develop aesthetic cognition.

A Music Curriculum Serves Many Masters

In planning the general music curriculum for a school, music teachers and administrators have many things to consider. As an ideal or philosophy, music teachers may want all of their students to experience the benefits of music "by itself" and "for itself," with concentration on developing musical experience and understanding. For the music teacher, the curriculum begins with sequential development of musicianship, always building on previously acquired skills and knowledge. Musicianship skills become the tools for creative work. Though the goals of developing musicianship and enjoyment in music are admirable ones, a more comprehensive understanding of music in its relationship to the arts, culture, and history provides a richer aesthetic understanding for all individuals and is necessary for modern life (MENC, 1994).

In addition to philosophical considerations, in a school setting, many practical considerations for the music curriculum are also important. In school, music is often needed for functional purposes. Social, cultural, patriotic, learning enhancement, enrichment, collaborations, and curriculum integration with other subjects often demand time for preparations from the music class curriculum and schedule. Assessment and accountability may, in part, drive the curriculum. There is the school philosophy and curricula across all subjects (as well as the connections between all of the fine arts) to consider. In addition, our multicultural society and the concern for world peace make it a necessity for American schools to provide students with a broad view of world culture. Advances in technology demand that the modern day music educator prepare students for the future and provide them with opportunities to learn technology for their creative and music learning. These concerns occupy a larger place of importance in the curriculum than in earlier times of American music education. With concentration in these more recent considerations of music curriculum, there is barely time to teach the cultural and historical heritage of music in the United States; yet, this also must be preserved. Is it possible to incorporate all of these considerations into the curriculum while still maintaining the integrity of musical experience and learning and the development of musicianship skills?

It seems that a course of study that incorporates all of the above would require a very large portion of the school day, every day, to implement. For young, inexperienced teachers as well as experienced educators, the responsibilities, and how to go about accomplishing them, may seem overwhelming, even confusing. Where is the balance in all of this, the unification of philosophy, structure and intent throughout the profession? What course of action should be followed?

As music educators, our first concern is that students' lives are enriched in a positive way through musical experience. We want our students to reach their creative potential and to become independent of us in their music making and perceiving experiences. We know that in order to do this, students need to develop musicianship. Musicianship becomes the tool, the skill and craftsmanship needed for creative expression and understanding. Students also need time to explore, discover and experiment with their learning, through creative thinking and application, in a nurturing and encouraging learning environment (Cox, 1999; Eaton, 1992; Hickey, 2001; Lapp & Lungren, 2000-2001). A development of musicianship skills and learning experiences that widen the students' understanding of music should be ongoing in the classroom.

Providing a balance between structured learning activities and learning that is exploratory, is a large and important part of music education (Plude, 1996; Priest, 2001 & 2002; Reimer, 1989; Smutny, 1990; Webster, 1991). Within this balance, can musical experience, aesthetic cognition and creative thinking, expression and application be the driving forces in a curriculum that has so many considerations not, in themselves, necessarily

related to musical experience? It can be. It is possible to nurture musical experience, aesthetic cognition, creative thinking, expression and application even in the first music lesson of a young child or class. Music experiences in the study of music history, listening, theory, form, instrument playing, singing, improvising, composing, performing and assessing can be integrated and synthesized within themselves and with other areas in the school curriculum at every level of learning. By nurturing, organizing, and structuring learning experiences so that they build upon previously learned knowledge and by providing students with opportunities to creatively apply even the most elementary levels of knowledge will bring about the in-depth understanding and musical experience we want our students to obtain. The middle school curriculum will serve as an example of how this may be accomplished.

The Middle School Age Gifted Child

The Middle School General Music Class can provide the middle school age gifted child with many opportunities for creative expression, musical experience and development of aesthetic cognition, and understanding of music and the arts in relation to history and culture. Often, general music classes are a mixture of history, rudiments of music and listening, with little relation to the real world of musical experience (Bledsoe, 1984; Boswell, 1991; Lapp & Lungren, 2000-2001; Vega, 2001). In attempts to maintain class organization, order and productivity, teachers may be apprehensive about "hands on" music making and creating with the middle school age child. The result is that students may be part of a "music class" with little involvement in actual music making. For musically gifted children, instrumental and choral ensembles or dramatic musical productions are the only avenues available for creative experience and involvement.

The pleasure and fulfillment that accompany musical experiences and creative expression are not characteristic of any age in human development over another (Lapp and Lungren, 2000-2001). The middle school age child has one foot in childhood and one in adulthood. They understand many things that younger children find intellectually challenging. They have more eye-hand coordination than younger children and are able to learn how to play several instruments within a classroom environment. Although on the surface they may not show it, adolescents have not lost the wonderment of childhood and the desire to express it. They are creative, sensitive and in a unique place in society as both wise children and young, inexperienced adults. The adolescent gifted child often has increased sensitivity and concerns about acceptance, belonging and self-esteem (Clark, 2002). When engaged in activities that demand decision making and responsibility, adolescents are enthusiastic, energetic and interested (Boswell, 1991; Lapp & Lungren; Linnenbrink & Maehr & Pintrich, 2002). A curriculum that incorporates exciting, hands on musical experiences offers many opportunities for creative application and is very motivating for this age group. Opportunities in responsibility, creative collaboration, and performing for younger and older groups in the population, can be rewarding for this age and help to keep introspection and feelings of insecurity in balance.

The Middle School Curriculum, a Broad Overview

In a well-balanced and planned curriculum, the music curriculum can be structured to correlate with the social studies program and other areas of the school curriculum while still maintaining the integrity of musical experience, and growth and development of musicianship skills. Depending on the curricular needs of the school population, a one-year-per-grade-level or multi-year curriculum can be created to ensure comprehensive learning over the child's middle school career. This helps to provide consistency over several years, while at the same time, serving both school curricular needs and music learning needs. For example, a three-year curriculum I created for an independent gifted middle school, grades 6, 7 and 8, was structured to correlate with the social studies curriculum and at the same time give students sequential learning in musicianship skills, music theory and composition. Musicianship was a continuation of skill development based on what they had learned in kindergarten through fifth grade.

The approach was comprehensive and included learning U.S. cultural music history; music history in the western hemisphere; multicultural music; performance skills; popular music styles; and music technology. I did not have access to technological equipment in this school; however, I used several music computer programs in teaching middle school children in other settings. Many available programs support this curriculum beautifully. A balance in how and what was taught within these broader areas of music was also important, depending on the ethnic population within the school, and occasional collaborative and integrated activities with art, drama and other subject areas. More importantly, the music curriculum was interrelated and integrated within itself, in that history, style, musicianship, skill building, listening, creative work and performance were all in support of each other. Ample time for learning and skill building was part of daily classes (four out of a six day rotation) with above all, time to experience music for itself. Performance opportunities, too, were a natural outgrowth of the activities in class and available to all students.

In broad terms, the three-year curriculum was carried out in the following manner. The largest considerations were a comprehensive music curriculum that supported the social studies program and provided to gifted middle grade students thorough exposure to American music history and styles and Western music (Ancient Greeks through Expressionism of the 20th century). The sixth grade year focused on American music history and styles with a correlation to timeline events and musical styles existent at the same time in other parts of the world. For instance, post Civil War music (spirituals, cowboy songs, sentimental ballads, ragtime, French Impressionism, Gilbert and Sullivan, Late Romanticism, riverboat entertainment, vaudeville, etc.) were taught not only as unique in themselves, but in musical and historical relationship to each other. Theory, form and the use of elements of music in each style would emerge in the analyzing, comparing and evaluating phases of learning. Musicianship skills also related to the literature and the students learned to sing songs and play recorder and Orff arrangements of the music from the period or style we were studying.

Creative application was always a part of the learning. For instance, if we were studying French Impressionism, we studied

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how the elements of music were used in this style. This involved, in part, learning about the whole tone scale, several improvisational activities, and a compositional project in whole tone. Relating the music to other subjects was a consistent practice. Whenever time allowed, I collaborated with other teachers (art, drama, English) to deepen and enrich the students' understanding. Listening to musical examples of the music under study was incorporated throughout our learning experiences, and often included varying arrangements and styles of the same piece of music for comparison, analyzing and interest/enjoyment.

The seventh and eighth grade curriculum was structured in the same way, with the concentration on Western music history. By these years, students were building on past knowledge and experience and had reached, in most cases, sophisticated levels of ensemble playing, singing and listening . On all levels of learning, differentiation was taken into account, especially with transfer students who had not been in the program. For example, ensemble music parts included various levels of difficulty to help compensate for this. In skill building and creative work, the emphasis was always on the music and the joy of learning, taking each student's present level of knowledge and skill from that point.

Grading was not a problem, even though students within the same class would be at varying levels of ability. Compositions, musicianship building and improvisation, were assessed on an "in process" criteria of:

1. How well the student used his/her time
2. Organization
3. Effort
4. Correct notation, etc. (see the included rubric).

A typical "creative application" assignment could be as follows: "Compose a melody using the Dorian mode we learned in class. Use a variety of note values and rhythms. The time signature is your choice. The melody should be approximately four to eight measures in length." Brainstorming for ideas in "getting started" would follow. (Following our unit of study, most students would not need this. They would be anxious to begin their creative work using their own ideas.) I would give students individual help, giving positive comments on what they had done and asking questions about their work to help them discover new possibilities to try.

Sometimes, compositional assignments were given on an individual basis, while at other times, students worked in group collaborations, or they chose either group or individual work to complete an assignment. Objective knowledge was assessed in quizzes. Singing and recorder playing were assessed by way of small ensemble performance exams, and self-evaluations using a rubric. Occasionally, solo exams were given with the option to come in at lunch or after school, if performing in front of the class made the student anxious. Steadiness of beat, rhythmic precision, tone quality, expression, correct notes, fingerings (if recorder exam) and fluency were assessed on pieces of music that had been thoroughly learned and practiced in class. Students were encouraged to come in at recess or after school for extra help, if necessary. Students were also encouraged to help each other and to practice together. Often, we spent a few minutes of class time practicing in small groups. Middle school students enjoy responsibility and choices in their learning. It gives them a feeling of autonomy and helps them to become independent, self-disciplined learners.

Solfege and vocal technique were a part of the curriculum as well as multicultural units, opera, electronic music, musical theater, etc. These also were in support of the social studies and music history curriculum. For example, the sixth graders, in correlation with their music class studies and the social studies curriculum, studied the musicals *Ragtime* and *Show Boat* and attended live performances (when possible). In any given year, when public performances of productions that relate to the curriculum are available, it just makes sense to take advantage of them. In keeping with this, the curriculum was flexible to allow opportunities/experiences provided by special guests who could contribute to our studies.

On all grade levels, especially middle school level, it is important to work "personal expression" days into the schedule so gifted students can share music that they have explored and enjoyed on their own. Using student "choice" examples to reinforce musical concepts is a powerful learning tool. In our classes, we analyzed, evaluated and made comparisons with the examples students brought to class just as in our other listening examples.

This curriculum was highly successful with students, parents, fellow faculty members and the administration. Children looked forward to class. They developed musicianship, they created, they shared, they learned and they felt very good about their learning. From year to year, gifted had a wide range of opportunities to build on their knowledge and continue to develop. This was evident in their singing ability, instrument ensemble playing, composing, improvising and desire to revisit listening examples.

The choral program, too, was highly successful. We spent ten to fifteen minutes on vocal technique, enjoyable warm-ups/rounds and solfege per rehearsal. We discussed style, composers, phrasing, arrangements and expression. We often collaborated with faculty members, parents, and students outside of the choir in learning pieces that combined choral and other instruments. We learned music from a variety of styles and periods-medieval through pop styles (a small number with movement), a portion being beautiful arrangements of music directly related to the music history and styles the students were learning in general music class. The program grew rapidly from one choir of fifty students, to six choirs involving more than 7/8 of the school population. Everyone was encouraged to join and collaborative performances with the younger grades, parents and faculty provided an experience not only aesthetic, but of sheer human happiness and fellowship.

The music program received praise and appreciation from all. The administration considered the balance of skill building, interrelatedness, creative application and performance to be a perfect manifestation of the school philosophy. Parents were exceedingly grateful for the high quality learning and enjoyment in learning their children experienced. The children were happily engaged in their learning. As a teacher, my main concerns and philosophy of teaching music education were accomplished, that is, to provide students with a curriculum that

would build musicianship, foster creative thinking and give students a comprehensive overview of the growth of music in the western hemisphere. Furthermore, to help students in understanding the importance of music to man throughout all cultures and to nurture the desire to pursue a life rich in music and arts experience.

Assessment of Learning

In this kind of curriculum structure, students can be assessed in their learning by way of formal and informal measures. A music portfolio, housing a child's work for the duration of the middle school years, best serves this purpose (Hebert, 2002; Wolf & Pistone, 1995). The portfolio contains written work, exams, evaluation sheets, tapes, videos, (performances, compositions), self-evaluations, rubrics, pictures, journals and critiques. I believe that performance is an assessment of what has been learned, and can, and should be, a natural outgrowth of student learning. Performance is also an interactive celebration and sharing for both the performer(s) and the audience. All students should have the opportunity to perform in general music class and in choral or instrumental ensembles. Opportunities for those who want to excel in performance should be in the way of additional small and large group offerings.

Musical aesthetic experience can be intensely personal in some contexts, and a celebration and sharing of love and life in others. How wonderful when we have many ways and means of experiencing music. The more we prepare our gifted students, the more time and energy we give to our music curriculum in the classroom, the higher quality of learning and life will be the result for these students and ourselves.

Supportive Philosophy

The curriculum is a three-year curriculum based in part on the social studies program and music history studies; hence the specifics. The three-year curriculum is organized in a way to create a comprehensive and balanced program beginning in sixth grade and ending upon completion of eighth grade. It is organized to cover all musical periods of our European musical heritage, the heritage of the Native American and African American, and is flexible in adding to our multicultural heritage. Whatever the time period, culture or style, the curriculum draws on musical examples of great aesthetic beauty, integrity and interest that are also age appropriate (Reimer, 1987, 1991). Songs, classroom instrumental music, creative work and even skills and drills are interrelated and integrated with the history or culture.

Comparisons of music across periods and styles are a normal part of the learning. This is a comprehensive curriculum where musical experience and creating are the most important elements. The blending of musical experience and creativity with the study of history and culture gives the curriculum added richness and depth. Certain aspects of the curriculum are in support of the social studies program-one or two per year-giving opportunities for collaborations. The other arts, too, are able to be a part of these collaborations. Creating a balance between making music in the classroom and integrated units of study with other arts is healthy (Reimer, 1991). While the topics in the curriculum remain the same from year to year, the music that supports them does not necessarily remain the same. An endless variety of examples and creative projects can be found to support any period in music. Many of the musical examples, skill building exercises, creative projects, instrument playing, listening examples, even comparisons to other styles and cultures are in support of the grade specific topics.

The curriculum provides a structure for teacher and students to ensure that the three years of music study in middle school is not a conglomeration of musical experiences, as wonderful as they all may be. The curriculum has direction and students graduate with a sense of how the various styles of pop music, music from other cultures, classical music, musical theater and opera fit into the large picture. At the same time, the curriculum provides a structure within which both teacher and students can realize creative potential. The possibilities for aesthetic musical experiences are endless. Consider the rich experience of listening to recordings of Swing Low, Sweet Chariot from an unaccompanied, untrained rendition, to choral, to the artistic beauty of Kathleen Battle and Jesse Norman in concert at the Met-after students have learned how to sing the piece, accompanied themselves singing while playing Orff ensemble ostinatos, learned 2 and 3-part vocal arrangements of the song, improvised their own accompaniments on Orff instruments while other children sing, and learned about the cultural, historical significance of the piece. This kind of curriculum nurtures aesthetic cognition (Reimer & Smith, 1992). It brings about aesthetic experience and knowing. The music experiences are aesthetic in themselves.

A curriculum of this kind takes time; however, the richness and educational benefits are many. There must be an understanding and communication within school boards, administrations, faculty, and parents in order to provide ample time in the school day as well as preparation time to implement an arts curriculum of this nature. Teachers may have to start with smaller versions and educate those who do not understand its merits in order to build the program. Educational trends often dictate school schedules, programs and curriculum content (regardless of the quality and success of arts programs). However, the standards of music and all arts education will continue to grow in excellence and integrity in the United States through a united philosophy and the combined efforts of philosophers, psychologists and arts educators.

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MARCHING TO THE BEAT OF AN EVER DIFFERENT DRUMMER

By Sylvia Rimm

Underachieving children aren't always creative, and creative children aren't always underachievers. However, an alarming number of highly creative children don't achieve to their abilities in school. Parents of those highly creative children frequently conclude with a certain amount of pride that "their child has always seemed to march to the beat of a different drummer." That pride becomes frustration as they watch their creative children close educational doors for themselves and struggle with loneliness and failure.

What is an Underachiever?

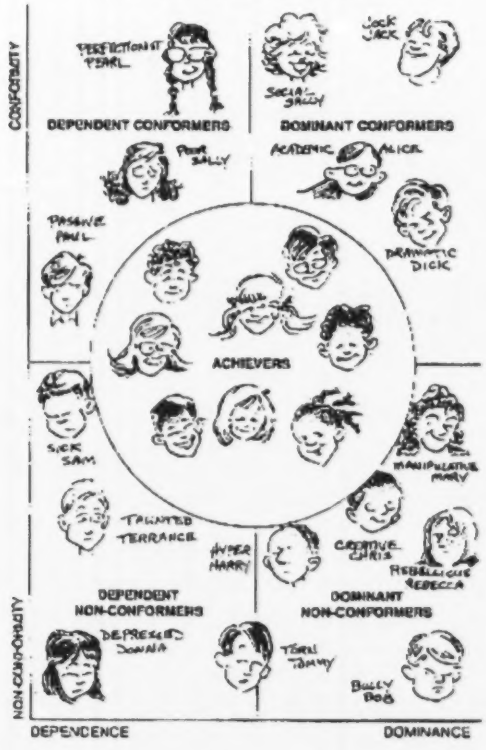
Underachievers usually begin as apparently bright and often very verbal preschoolers, but at some point their enthusiasm for learning and satisfactory school performance change. Underachievement results when some things go wrong both at home and school. Symptoms of underachievement may include unfinished work, loss of homework, disorganization, disinterest in school, "I forgot" excuses, and blame of others for problems and declining grades. Underachievers tend to blame their parents, teachers, siblings and even their dogs for disappearing papers.

Symptoms of creative underachievers, specifically, often include making effort only in areas that seem creative enough for them and working only for teachers that admire their creativity. Underachievers deny themselves the opportunity to build confidence because they direct their energies toward avoiding effort. They don't understand the relationship between process and product, between effort and achievement. They fear taking risks unless they're certain of success.

Dependence and Dominance

Underachievement is frequently reinforced by well-intentioned parents and teachers when they unknowingly reinforce rituals of either unusual dependence or dominance or both. (See Figure 1) These dependent and dominant patterns begin to feel natural to children and adults alike. Parents often believe that teachers and the school structure will resolve their children's problems or the problem will be resolved with maturity. Dependent and dominant children may have practiced their control patterns in relating to adults for several years before they entered school, and the patterns have become bad habits. The children know no others. They may carry these underachieving patterns to the classroom from home, or they may learn them in the classroom. They continue to use them to preserve their fragile self-concepts. The patterns are truly psychological defense mechanisms. Educators and parents need to respond to underachievers counter-intuitively to reverse underachievement.

The Inner Circle of Achievers



Source: *Why Bright Kids Get Poor Grades* by S. Rimm, 1995, Crown Publishers

IS YOUR CHILD AN UNDERACHIEVER?

1. Does your child forget to do homework assignments?
2. Does your child give up easily?
3. Does your child avoid competitive activities unless he/she is almost sure to win?
4. Does your child start working on homework late each night?
5. Does your child watch two or more hours of TV (or play two or more hours of video games) on school nights?

Score 1 point for each yes response and total the points. Scores are explained below.

Total Points

4-5: Your child has characteristics that indicate a very serious underachievement problem.

2-3: Your child has characteristics that indicate a fairly serious underachievement problem.

1: Your child has characteristics that indicate only minor underachievement problems.

0: Your child has no underachievement characteristics.

Source: *Sylvia Rimm on Raising Kids Newsletter* by S. Rimm, 2001, Apple Publishing.

UNDERACHIEVEMENT . . .

Some School Causes

peer pressure
lack of challenge
conflicts with teachers
unidentified learning disabilities
too much or too little competition
a move to a more or less difficult school

Some Home Causes

overprotectiveness
sibling rivalry
conflict between parents in expectations for their child
overempowerment
too much or too little attention
an anti-work attitude or overemphasis on work
feelings of pressure

Source: *Sylvia Rimm on Raising Kids Newsletter* by S. Rimm, 2001, Apple Publishing.

The dependency pattern is often masked as insecurity, immaturity, extreme sensitivity, passivity, or learning disabilities. Dependent underachievers ask for more help than they require. They may insist on having parents sit with them while they do their homework. Dominant underachievers expect more power and praise than they should. They're vociferous in arguing about why they shouldn't have to do

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their work; they tend to blame teachers or parents for their problems. They like to pick and choose only the schoolwork they enjoy. Creative underachievers tend to be either dominant or display a mixture of dependent and dominant defense mechanisms. They often cry and give up easily but defend their cause most powerfully and even angrily.

Precarious Balance

There's a precarious balance between creativity and oppositionality. Creative children often feel so internally pressured to be creative that they define their personal creativity only as nonconformity. If they're unwilling to conform at least minimally, they risk losing the opportunities to develop their unique talents. When parents and teachers encourage creative children not to avoid responsibility in the name of creativity, they can channel their important talent toward productive contributions and feel better about themselves.

Creative Underachievers

Both creative achievers and underachievers have been given early messages about the importance of creativity by at least one parent. The messages come most simply from the praise given to them for their creative products and actions. They learn that when they do something unusual, or if they have a funny or different idea, it brings attention. It's also likely that temperament and genetic makeup may facilitate their creativity. Creative thinking becomes a personal motivational goal, which won't necessarily lead to underachievement if home and school environments cooperate to foster, not pressure, the creative process.

An early indicator of a potential problem will appear in the differential valuing of the child's creativity by two parents. The child that identifies with the creative parent is likely to be creative; but if the other parent doesn't value creativity, the seeds of opposition and underachievement may be planted.

At elementary level, creative children may be seen as achievers, although the telltale signs of creative opposition are usually already visible. They often voice complaints about boring reading workbooks and teachers that don't like them, and parents may ally with them against the teacher, or ask for less busywork or request deadline extensions for assignments. Parent conversations with other adults that take place within children's hearing (referential speaking) about the lack of creativity in schools, the inadequacy of teachers, or the invidious comparison of routine schoolwork with the more creative out-of-school activities in speech, drama, or music, will add to the opposition problem.

As the parent sides with the child against the school, the child learns to avoid school responsibility and to blame the boring school curriculum for his/her problems. Even when teachers provide creative curriculum, these students find excuses for noncompletion or avoidance. Their achievement is sporadic. In some subjects, for some assignments, and for some teachers their productivity is impressive, creative, and even outstanding. However, quite unpredictably, achievement disappears and hostile battles increase for what appear to be no reasons at all. In the powerful alliance of child and parent, the child gains too much power and may become engaged in subtle struggles with teachers in the name of creativity. Within this struggle are the seeds of the pattern of determined and oppositional nonconformity. The child has begun his/her march to the beat of an ever different drummer.

Paradoxical Pressures

Creative young people are faced with paradoxical pressures. Their internalized value system says to "be creative." They translate that to mean "be different, don't ever conform." However, achievement requires some conformity. Peers are also demanding their conformity for acceptance. Conforming to friends seems antithetical to their wishes to be creative.

During the preadolescent years, creative underachievers are typically unhappy, often unappreciated by parents, teachers, and some peers. By senior high school, opposition is firmly entrenched and a way of life. The opposition that began as an alliance between a parent and a teacher has expanded to become opposition against one or both parents and any number of teachers. Sometimes, the adolescent will be successful in getting Mom on his/her side against Dad, or vice versa. Either or both parents may share in their protest against the school. The most likely alliance group of all, however, will be an oppositional peer group, preferably one that identifies itself as "different." The creative underachiever has finally found acceptance by friends who value, most of all, nonconformity and opposition. Even with reference to their friends, they sometimes describe themselves as "the most different" of these already different kids.

Creative Underachievers: Some Case Examples

Drew and his parents came to Family Achievement Clinic because Drew had been referred to special education in first grade. His parents initially defended Drew, claiming that the school was simply not creative enough for him. They explained that he was a spontaneous reader and refused to do "boring" workbooks.

The teacher was frustrated by Drew's opposition to doing workbooks (he also refused to do math or any other writing assignment) and finally had him placed in the lowest reading group where he only needed to "cut and paste." Bored during reading group one day, Drew had put his hand in an open jar of paste and watched the paste come out of the jar as he pushed down gradually. He shouted out in excitement that, "this was the theory of displacement that his dad had told him about." This incident was actually "the straw that broke the camel's back" and resulted in the special education referral. Drew, a gifted child, had accidentally been empowered to take on his first-grade teacher.

With only a little therapeutic work, Drew's parents and teachers worked together to encourage him to do the challenging written work that he so dreaded (handwriting was no easy skill for Drew). They also provided him with creative outlets that his temperament and interests required. It was a fairly easy turnaround for a first grader.

From time to time Drew required a bit of first aid along his academic route, but he's now in college and the following letter from his mother demonstrates that both Drew's

creativity and interest in physics have continued:

Dear Dr. Rimm,

I decided to let you know that Drew is doing swimmingly well. He made the dean's list both semesters as physics major in his junior year. Having decided to change to an electrical/computer engineering major, he took a computer summer class earning an 'A', and at mid-semester this fall, he had four A's and one B.

Not everything has changed; he's still a romantic. His aspiration is to be a tour guide in Siberia or to work with grizzly bears (both after getting a Ph.D. in whatever).

Important! He was the most improved player on the hockey team (last year second high scorer), and it is very obvious when the team is on or off the ice (from our observation) that he likes everyone and everyone likes him. Thank you so much!

Emily, an eighth grader who had come to Family Achievement Clinic with her parents, had been an all-A student through sixth grade, but had had a disastrous year in seventh grade. She had joined and led a rebellious peer group, and her grades were barely C's. She bragged about her leadership in extreme fashions among her classmates at her former school. Her unique outfit advertised her difference.

In Emily's initial conversation with me, she requested my assistance in persuading her parents to help her go back to the school where she had been a leader. She also launched a debate on the value of piercing her "bellybutton." I convinced her to give her new school, a Catholic school where she had to wear "detested" uniforms, a chance. I also helped her to understand that there were many avenues for her creativity besides leading in fashion opposition. I asked both her parents and teachers to help her to find a creative outlet in school drama where she was able to get a lead role in a play. She made friends among the drama group and finally discontinued her negative peer group from her former school.

It wasn't an easy transition for Emily, but by the end of the school year, she felt satisfied with her more positive and successful self and agreed that she was enjoying both drama and writing as reasonable avenues for her creativity. Her rebellion had quieted, her grades were high, and she was ready for high school with a very positive and creative attitude.

Jonathan came to Family Achievement Clinic as a sophomore after failing his whole ninth-grade year. In seventh grade, under the rubric of home schooling, he had audited and completed two college classes with 'A' grades as he attended college with his mom twice a week. He was center of attention at the college, and professors and students were amazed at his achievements. After returning to high school, he was rapidly disillusioned with honors classes where he was just another student. He had "shut down," refused to do homework, and wanted to skip the remainder of high school and go on to college, although neither his IQ scores nor achievement tests indicated readiness for that kind of skip.

Jonathan came to me carrying a petition on a variety of teacher issues at school signed by most of his classmates, blaming the school for all of his problems. It took a bit of my convincing to encourage his compromise with school requirements. I assured him that such compromise would be needed if I were to help him achieve high-level creative work in his art and music interests. I knew I had touched his tender soul when he thoughtfully asked if I thought he should mount his educational rebellion like Ghandi did.

We're still working together. Jonathan is now a junior, doing extraordinary work in music and art but barely doing average work in math and science. His agreed-upon goal is a high school diploma so that he may be accepted into an art school. His art teachers insist he's one of the most talented young men they've ever observed. The more they marvel at his artistic talent, the greater the struggle he seems to have staying on task in other subjects. His art teachers are also giving him strong and positive messages about earning his high school diploma, and now, instead of petitioning the removal of all teachers, he regards his special effects art teacher as the most important role model he has ever met. He attends therapy willingly with the urgent goal of artistic accomplishment.

What Parents and Teachers Can Do to Help Creative Underachievers

Ideal home and school environments that foster both creativity and achievement include parents and teachers that value creativity within the limits of reasonable conformity. That is, children are praised and encouraged in unusual and critical thinking and production, but this difference does not become a device or a manipulation for avoidance of academic or home responsibility. If in any way creativity takes on a ritualized position of avoiding a parent's requirements or the school's expectations, then creativity will be used as "a way out" of achievement. This is always a delicate balance and is much more difficult than appears in print. Here are some recommendations for parents and teachers for the prevention and/or cure of underachievement in creative children:

- Encourage creative children to be productive in at least one area of highly creative expression, and help them to find an audience for their performances. Children that are happily and productively involved in creative arenas are less likely to be using their energy to fight authority. Whether their choice of creative expression is art, drama, music, or science, a creative outlet frees them of some of their internalized pressure to be nonconformists in other areas. Be sure, however, not to permit them to use that creative outlet as a means of evading academic assignments.
- Find appropriate models and mentors in areas of children's creativity. Creative children, particularly in adolescence, too easily discover inappropriate models that may also be creative underachievers. Appropriate models should share their creative talent area, but must also give the message of self-discipline and reasonable conformity, which the underachievers haven't developed. The model should be an achieving, creative person.

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- Find a peer environment that combines creativity and achievement so that creative children may feel comfortably accepted by other achieving and creative young people. Gifted resource programs frequently provide a haven for creative underachievers provided the identification process hasn't eliminated them from participation. Art, music, creative writing, and drama classes are often helpful. There are many summer opportunities for drama, music, art, photography, computers, science, math, or foreign languages that provide excellent creative outlets.
- Encourage intrinsic motivation while also teaching competition. Children should learn to enjoy the creative process for the joy and satisfaction of their personal involvement. However, they shouldn't be permitted to entirely avoid the competitive arena. They should experience a balance of winning and losing to build confidence. They should understand their creative potential in the context of the talent of others in their area of expertise.
- Use creative strengths to build up weaknesses. Children don't have to be equally strong in all areas, but they do have to accomplish at least minimally in school-required subjects so that they don't close educational doors for themselves. Creative children will often find their own solutions to dealing with their weaknesses, and some flexibility and encouragement on the part of teachers will foster creative solutions.
- Don't label one child in the family "the creative child." The label causes that child to feel pressured to be most creative all the time and causes other siblings to believe that creativity isn't possible for them at all.
- Avoid confrontations, particularly if you can't control the outcomes. This isn't an excuse to avoid firmness and reasonable consequences, but it is a warning to prevent overreaction, overpunishment, and the continuous struggles and battles that often plague the creative adolescent's environment. Modeling and sharing positive work and play experiences are more effective than lectures and threats.
- A parent should not, if at all possible, ally with a child against a teacher in the name of creativity. Parents should communicate their concerns to teachers, but it must be done carefully so the teachers or school are not "put down" in the process, and the child doesn't view this as an excuse for not fulfilling school expectations.
- One parent shouldn't ally with a child against another parent in the name of creativity or permit the child's creative needs to be the excuse for not doing what the other parent requests. This may cause the child to become rebellious with creativity as his/her excuse.
- Help creative adolescents to plan a creative future. Though they are underachievers at this time, they need to understand that most creative careers are open only to achievers. If they're unwilling to compromise and conform to reasonable requirements, they're likely to close doors to future creative opportunities.

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TEACHING TO THE LEARNING STYLES OF CREATIVELY GIFTED CHILDREN

By Joan Franklin Smutny

The following story illustrates the common dilemma faced by creatively gifted children:

> In fourth grade, I felt like there was something wrong with me. The teacher would tell us to read a certain chapter and answer questions on a sheet of paper, and it would take me forever to get through the chapter because my mind kept wandering off. Then, I would read my own ideas into the chapter and, instead of just answering the questions, I would write an argument about my idea and the teacher would say, "Where did you get that? I don't see anything like that in the text." When I entered fifth grade, things started to change for the better. In a lesson about the world's forests, my teacher had me make a visual model that showed what happened to a forest in the Pacific Northwest from the mid 1800s to today. I was in my element. I worked with a number of maps, did my own research on the subject, and created a visual drawing that showed how much of the forest had shrunk over time. From there, I devised a system for representing what this loss did to animal life, climate, etc. For the first time in my life I felt smart!

This girl, Natasha, was more than smart. Her eighth grade teacher considered her the most promising student he had seen in his 12 years of teaching. But, he said, "She's one of those quirky kids who could either disappear in the wrong context—you know, in a classroom where the teacher didn't understand her—or reach the top of the mountain in a single bound. Natasha is utterly original and unfortunately, her uniqueness is often misunderstood by her teachers."

For children like Natasha, having to sit at a desk and work on assignments that only rarely involve creativity is like trying to breathe without air. Natasha was fortunate in that she had a few teachers who not only saw her potential, but even "explained me to myself," as she put it. Creatively gifted students do not always know why they are out of sync with others and having a teacher who does can be enormously reassuring. Nurturing adults can help creative young people avoid some of the pitfalls that come their way—for example, the temptation to use creativity as an excuse for not doing required work, or, suppressing creative talent in order to be accepted by peers and adults.

One of the most effective ways to support creative students is to integrate the arts into the curriculum wherever possible. The arts include a wide range of learning preferences and, contrary to popular opinion, play an important role in stimulating cognitive growth. For this reason, Goertz (2003) envisions art instruction as the "fourth R" in education-a discipline that significantly increases the skills of observation, abstract thinking, and problem analysis.

Education in art is an invitation to use the reasoning skills of an artist. The artist visualizes and sets goals to find and define the problem, chooses techniques to collect data, and then evaluates and revises the problem solution with imagination in order to create....The artist, in his or her creative process, requires a high-order thought process (pg. 476).

Integrating creativity and the arts into the academic curriculum enable children with creative learning styles to apply their reasoning and problem-solving abilities in ways that are most natural to them (see Smutny, Walker, & Meckstroth, 1997). When using the arts to modify the curriculum, teachers should tie activities both to the unique learning styles and abilities of individual students and to curriculum goals. Ask yourself: What needs do my activities meet? What precisely do I want my students to learn and how will these activities fulfill the demands of my curriculum and promote the growth of my creative students?

The following pages provide examples of how you can use the arts to differentiate instruction in the language arts, social studies, and math and science curricula. These examples can give you ideas on how you can use the arts to accommodate creatively gifted children with a wide range of learning styles.

Language Arts and Social Studies

The arts can strengthen all areas of oral and written communication and provide opportunities for creative problem-solving and analytical thinking for a range of learning styles. In social studies, the arts can connect students to other time periods, places and cultures by giving them more ways to understand, synthesize, and interpret historical events, political processes, values, and cultures.

Reading.

- **Learning goal: Increase recall of details.**
  - *Visual/spatial*—Students choose an environment in a text and sketch what exists in this environment and where things are in relation to each other.
  - *Bodily/kinesthetic*—Students choose a character to impersonate, absorbing as many details as possible.
  - *Naturalist*—Students focus on the flora and fauna of a story or novel and identify and sketch the different species.
- **Learning goal: Stimulate critical thinking.**
  - *Bodily/kinesthetic*--Students create a chamber theater piece out of a short story. What scenes do they consider most important and why?
  - *Musical/rhythmic*—Students think of words as music. What sort of music or sound does a poem/story suggest and what does this say about the meaning? They compose music and/or soundtrack.

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- *Interpersonal*—Students work together to create a profile of each of the characters and their impressions of them.

- **Learning goal: Analyze different points of view**

- *Intrapersonal*—Students study a story or novel from a character's point of view and write about this.

- *Bodily/kinesthetic*—Students stage debates between two characters in conflict.

- *Visual/spatial*—Students draw and/or paint something that expresses two characters' points of view.

Writing

- **Learning goal: Explore the elements of plot**

- *Visual/spatial*—Students provide visual catalysts (paintings, photography, video, etc.) to imagine what happened before and after the scenes depicted. Have the visual image be the climactic moment of a story, the moment after the climax, the moment before.

- *Interpersonal*—Students work together in groups to develop an alternative plot for a fairytale.

- *Bodily/kinesthetic*—Students create improvisations around the most dramatic moments of their favorite stories.

- **Learning goal: Stimulate original use of language**

- *Verbal/linguistic*—Students listen to a taped reading of a story or poem and write a creative response to this reading.

- *Visual/spatial*—Students respond to a range of painting and photography to create new imagery for free verse (e.g., Thomas Locker's *Walking with Henry*, 2002). What would they feel/see/hear/smell if they were inside the painting?

- *Logical/mathematical*—Students combine analogy exercises with painting and photography to stimulate original language for poetry and creative prose. They consider such questions as: How is a tree in this picture like the deer in the pasture? How is time like the river? How is a child like a star?

- **Learning goal: Strengthen the composition of paragraphs**

- *Interpersonal*—Students write a description of someone in a portrait and then put their paragraphs together. They discuss: What ideas go together and why?

- *Visual/spatial*—Students create a collage or visual display where a main sentence is in the center and the others flow out from it in a sequence of imagery, as well as words.

- *Logical/mathematical*—Students turn a poem into a paragraph, changing any words they wish. They explain the logic behind the ordering of lines in a poem and the order they create for a paragraph. Is the order the same?

- *Bodily/kinesthetic*—Each student in a small group receives a sentence in a paragraph. They play a theatrical game where each one of them wants to be the main sentence. Each student presents their case (why they should be the main sentence) and the class makes a decision on who is first, second, etc.

Social Studies

- **Learning goal: Expand understanding of another time, place, culture**

- *Visual/spatial*—Students explore pictures, portraits, documentaries about a historical event and sketch a response to their impressions.

- *Musical/rhythmic*—Students choose a musical tradition in a particular historical period or geographical location and research evolution of this form, relating it to history, culture, society

- *Verbal/linguistic*—Students write a short piece of historical fiction, selecting the historical details they find most important or compelling.

- **Learning goal: Analyze the contrasting views of an issue**

- *Bodily/kinesthetic*—Students adopt the identity of a historical figure and debate this individual's point of view on labor laws. Then they do the same with a person on the opposite side of an issue.

- *Verbal/linguistic*—Students write a news story about a hotly debated issue, synthesizing different opinions and trying to be fair to all sides.

- *Visual/spatial*—Students examine political cartoons of the past to explore popular views on a debated subject. How does cartooning work? What strategies are the artists using to get their point across? They create a cartoon of their own that expresses many of their fellow students' feelings about something in their school, community, or world.

- **Learning goal: Increase skill in understanding and analyzing maps.**

- *Visual/spatial*—Students design maps of their neighborhoods that represent not only the layout of streets, shops, etc., but some historical events. Using examples of other maps (old, artistic ones as well as more modern ones), children create their own kind of map, including compass points (north, south, east, west) and scale.

- *Verbal/linguistic*—Students create a travel story based on maps, using as much information as they can from them.

- *Logical/mathematical*—Students compare two maps of the world (e.g., an old historical one and the Arno Peters map) and determine accuracy in terms of relative proportions and sizes, etc.

- **Learning goal: Compare social customs of the past with those of the present.**

- *Bodily/kinesthetic*—Students stage imaginary interviews with time-travelers who discuss what aspects of the past and present they prefer and why.

- *Verbal/linguistic*—Students choose a social custom or practice from today and write a futuristic piece of fiction around this practice

- *Visual/spatial*—Students analyze paintings, photos and other representations of a time and explore what these say about class structure, political culture, and attitudes toward men and women.

Science and Mathematics

Science and mathematics have much closer ties to the arts than we think. Roy Lichtenstein said, "Organized perception is what art is all about" (Piper 1981, pg. 95). Leonardo Da Vinci applied mathematics and science to every aspect of his work-exploring anatomy, inventing machines and sketching designs for technology far in advance of his time. Thomas Locker, a contemporary artist, has integrated science and art in a format designed especially for teachers' classrooms. His *Sky Tree Portfolio* (1995), *Cloud Dance* (2000), *Water Dance* (1997), and *Mountain Dance* (2001) contain exquisite paintings of nature with information and activities that promote scientific inquiry.

Science, mathematics, and art all explore similar phenomena-light, color, perspective, proportion, mass, gravity, etc. The following activities suggest ways to give children access to these concepts by examining areas where artists, mathematicians, and scientists intersect.

Science

- **Learning goal: Understand the science of light waves.**

- *Bodily/kinesthetic*—Students explore how light makes the world visible by physicalizing the process in groups. They create a dance/mime piece that demonstrates what they've learned.

- *Interpersonal*—Students work together to create a multi-media installation that demonstrates the science of light (may include free verse poems, music, diagrams, models, dance).

- *Visual/spatial*—Students explore how artists represent the science of light-its directions, color at different times of the day, its interaction with water, etc. Students select some aspect of light that interests them and problem solve ways to represent this visually through painting, collage or sketches.

- **Learning goal: Understand and demonstrate the principles of flight.**

- *Bodily/kinesthetic*—Children assume the identity of great innovators in flight (e.g., Wright brothers, Charles Lindbergh, Earhart) and talk to the class about his/her experiences and what he/she contributed to aviation

- *Visual/spatial*—Students create a series of drawings representing different aspects of flight-thrust, momentum, lift and drag (they can use birds and other flying creatures to illustrate this)

- *Naturalist*—Students identify and research the world's most astonishing birds in terms of flight distances and speed. They draw their routes on a map.

- *Verbal/linguistic*—Students write poetry/fiction/nonfiction on the role of flight in their lives, in society, technology, culture; study mythology around flight.

- **Learning goal: Sharpen observational skill and critical thinking about natural phenomena.**

- *Naturalist*—Students compare nature with nature art, classify flora, fauna, and other phenomena (e.g., types of clouds etc.). They explain the science behind these details.

- *Bodily/kinesthetic*—Students choreograph a dance about weather changes or some other phenomena, or create a mime piece about an angry storm (can be humorous).

- *Visual/spatial*—Students compose an original art piece that focuses on the science of some phenomena; they can draw on the work of other artists as well as science (e.g., surrealists).

Mathematics

- **Learning goal: Sharpen observation of geometric shapes.**

- *Visual/spatial*—Students examine the Cubists and experiment with ways they can represent geometry concepts in art.

- *Naturalist*—Students examine geometric shapes in nature and art and list the different kinds and how this enables them to identify flora.

- *Bodily/kinesthetic*—Students experiment with different geometric shapes using their bodies, lighting, and props.

- **Learning goal: Gain flexibility in Using Number Theory**

- *Visual/spatial*—Students invent a design that represents how number theory works.

- *Bodily/kinesthetic*—Students create a game that uses squaring numbers, identifying multiples, identifying factors, etc.

- *Musical/rhythmic*—Students demonstrate number theory through a variety of rhythms.

- **Learning goal: Acquire mastery in computation**
  - *Verbal/linguistic*—Students invent a story where the plot centers around numbers and calculation
  - *Visual/spatial*—Students estimate how many visible brush strokes are on a painting and then explain their calculations.
  - *Naturalist*—Students choose a species that is endangered or is coming back. They calculate the rate of decline (or increase) over the last five years and estimate future numbers based on current information. They review impact of ads, visual media to get the message across and design some of their own ideas.

These activities are examples of ideas you can develop more fully when you start teaching to your students' learning styles. They can work in a variety of teaching situations. For example, a couple of students for whom you've compacted the mathematics or language arts curriculum could choose from a list of creative activities that will extend their abilities in specific areas. You might have a list of alternative projects on "project menus," where students can select what most interests them. Several related arts activities might meet the learning needs of a group of students who have a bodily/kinesthetic learning style.

Managing the Process

As discussed in the previous chapter, having a firm grasp on specific learning goals (knowledge, concepts, skills) is half the battle. Then the question arises: Given my students learning styles, abilities, disabilities, and interests, how many different ways do I need to provide for their needs in a way that is practical and manageable? Let's say that you know the learning styles of your students, the learning goals within each unit, and the "exit points" in the curriculum where you can create alternative assignments. Now, a host of practical concerns arise: How will students move around the room? What level of noise is acceptable (especially in cases of group work)? What is the best way to give directions when there are several or more groups doing different tasks? How should you arrange seating? What should your role be when students are working in different groups (or independently) on projects? When should you work with the different groups and what should you do in cases where students finish their projects early?

Prepare the students. The more students understand what the new format in the classroom is all about, the more they can contribute to (rather than distract you from) the process. Right at the beginning, talk to them about different learning styles and the fact that we all have things we can do very well and other things that seem hard for us. Introduce them to the different learning styles and give them time to explore their own.

Establish routines. Differentiated instruction demands that students develop more responsibility for the classroom than when they're all sitting in straight lines doing the same thing. The process can become far more manageable for you if you create rules that govern:

- behavior in small groups and while moving about the room
- noise level in the room
- routines for rearranging seats
- routines for distributing and collecting materials
- rules for asking the teacher or other students for help.

Delegate some responsibilities. If you're accustomed to the traditional teacher role, you may discover that you're doing more of the work than you actually need to. Ask yourself: Are there any tasks or jobs I could delegate to students? For example, you could assign a couple of children per week to distribute and collect all materials. You could have the children practice moving their chairs around in different formations so that they become accustomed to the process.

Set up as much as you can ahead of time. The more you arrange ahead of time, the less you will have to think about when you're immersed in an active classroom. Consider ways you can handle tasks such as the following: posting the children's names for different groups (so they can find their own seats); storing students' work when they're finished (e.g., folders, bins); providing containers for the supplies that you put on each table; and having other activities on hand in case some students finish early.

Provide clear directions. Many teachers find "workcards" (Heacox 2002, pgs. 96-97) a helpful tool. They can be the size of an index card or larger and some teachers color code and laminate them so that they can use them repeatedly. These cards provide clear directions on assigned work for a group, pair, or individual and may also have criteria for quality performance and sometimes a checklist of all the steps students need to take. Workcards significantly increase students' autonomy and reduce the number of times they have to run to the teacher for guidance.

Recording student progress and need. Plan ahead for all the different ways you will monitor student progress and need. Consider the use of observations, informal talks with the students, checklists, review of student portfolios, their own self-evaluations, and consultations with parents. You can design a method of keeping track of student progress that best suits your teaching schedule and style. Some teachers like to have students fill out logs where they enter what they did each day and a couple of lines about what they feel they learned, what they still need help on. You could also send notes home to the families with questions that they can answer on paper and return to you. Talking to each student or group of students about what they're doing and how they feel it's going can help you gauge whether or not you need to make changes in assigned work and/or student groups.

A key advantage to creative and arts processes in the differentiated classroom is the fact that they accommodate children with different levels of ability and experience. For example, a child who chooses to write historical fiction can go as far as his imagination, skill, and ability will take him. There are no restrictions for students with exceptional talent and yet other students with less skill can still gain all the benefits attending this experience. In many respects, creative processes accommodate differences easily and, when

designed to target specific learning goals, they stimulate cognitive growth and higher level thinking in all subject areas.

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THE MILLENNIUM: A TIME FOR LOOKING FORWARD AND LOOKING BACK

By E. Paul Torrance

As I have spent almost 85 in the last century, I can write with considerable authority on "Looking Back." As I have dared to write on "Looking Forward" several times, I will try to project myself into the future. Some of my dreams of the future of creativity research and practice have already happened. Others have been partly realized, and still others have not happened at all, but I believe we are well on the way. This belief is based on the fact that the field of creativity has attracted some of the most creative, intelligent, courageous, daring, hard-working people in existence.

LOOKING BACK

From the beginning of my teaching career, I have been concerned about how to teach creative people. I wanted to teach them effectively, but I did not know how I could accomplish this feat. I wondered how I could find a way. I tried counseling, testing, learning more about intelligence, personality, and motivation. Finally I found out about creativity, creative problem solving, and creativity tests. I developed my first test in 1943, but I did not have a chance to develop the kind of creativity tests needed until 1958, when I became Director of the Bureau of Educational Research at the University of Minnesota.

The University of Minnesota provided an ideal environment for the development of tests of high abilities and aptitudes. It wa the home of the Miller Analogies Test. This is a test of high intelligence, and at one time was used by almost all graduate schools for admission. It was also the home of the Minnesota Multiphasic Personality Test, which is still the most respected personality test in employment situations, hospitals, government, military, college, and university settings. In its Counseling and Testing Bureau, for many years it developed the Strong Vocational Interest Test, and clerical, mechanical, and dexterity tests were also developed.

I still would not have been prepared to develop tests of creative behavior had I not spent seven years doing research

in support of the Air Force Survival School and headed a task force to study the effectiveness of its fighter interceptor unit in the Korean War. I found my first, and in my ways the best, definition of "creativity" there. At the Survival School, air crews were trained to survive in emergency and extreme conditions for which they had no learned and practiced behavior. This was even true in the survival training program, which involved living off the land, evading capture, and resisting grilling interrogations. In the fighter interceptor pilot study, I met the most creative group of men I have ever encountered. In addition to interviews, we administered such instruments as the Rorschach Inkblot Test and the Life Experience Inventory. On the Rorschach indicators of creativity (original or unusual responses and movement responses), their mean scores placed them in the upper ten percent, compared to the general population of superior adults. On the Life Experience Inventory, they also achieved significantly higher than superior adults. The Jet Aces scored significantly higher than other fighter pilots.

Getting Started

Beginning in January 1958, I got my big chance to learn more about giftedness and creativity. The advisory committee of the Bureau of Educational Research at the University of Minnesota initiated a 25-year program of research on giftedness, using a multiple intelligence or talent approach. Because of the University's rich tradition of test development, it was assumed that tests of these intelligences and personality would result. We chose to begin with tests of creative thinking ability and creative motivation. The research on creativity blossomed and expanded so much that we did not develop tests of other intelligences. We did succeed in developing the Torrance Tests of Creative Thinking (Torrance, 1966) and the Creative Motivation Scale (Torrance, 1962).

We also developed a Life Experience Inventory, which produced excellent evidences of validity (Dauw, 1965). In his doctoral dissertation, Dauw found strong evidence that the Creativity Scale was correlatd with Creative Career Choices, Creative Personality Self Descriptions, original thinking and elaboration and the vocational needs of highly original and high elaborators.

Regarding the creative thinking measures, priority was given to the Torrance Tests of Creative Thinking (TTCT). We were anxious to produce a reliable and valid measure which could be used with a wide age range (from kindergarten to adults). We realized that there were many different kinds of thinking abilities. We chose what seemed to be the most important abilities, and designed test tasks which could measure these abilities. After many test tasks had been developed, they were administered and scored. Then the scores were factor-analyzed, and we selected for the test battery those that showed the least correlation with one another, in order to maximize the different kids of creative thinking scores. Theoretical rationales have been described in numerous sources, among them the original technical manual (Torrance, 1966).

Defining Creativity

Even before I started researching creativity, I was aware that there was a multitude of definitions of creativity. After reviewing many definitions, I decided that, for research pruposes and for developing creativity tests, a process definition would fit my needs. Therefore, I defined creative thinking as taking place in the process of sensing difficulties, problems, gaps in information, missing elements; making guesses or formulating hypotheses about these deficiencies; testing these guesses and possibly revising and retesting them; and finally communicating the results. I like this definition because it describes such a natural process. Strong human needs appear to be at the basis of each of its stages. If we sense any incompleteness, something missing or out of place, tension is aroused. We are uncomfortable and want to do something to relieve the tension. As a result, we begin investigating, asking questions, manipulating things, making guesses, and the like. Until the guesses or hypotheses have been tested, modified, and retested, we are still uncomfortable. Then, even when this has been accomplished, the tension is usually unrelieved until we tell somebody about what we have discovered. Throughout the process, there is an element of responding constructively to existing or new situations, rather than merely adapting to them. Such a definition places creativity in the realm of daily living and does not reserve it for ethereal and rarely achieved heights of creation.

The present components of the Future Problem Solving Program are group problem solving; individual problem solving; scenario writing; community problem solving; and a non-competitive primary division problem solving (Treffinger, Jackson & Jensen, 1996). Now, Alice Terry and Jann Bohnenberger have proposed a new component that is called action based problem solving (Bohnenberger, Torrance & Terry, 1996). This component is designed for all students in a school or school system, not just the gifted. Each school will be provided with materials for a training workshop, a teacher's manual, and a challenge booklet. It will involve students in grades 1 through 9. It was tested in five school systems in 1998-1999.

The Future Problem Solving Program itself is rich in possibilities for research. Little has been done, and there is much more that we need to know. We need to find out how much practice is needed, how much time should be allowed in bowl competitions, how participation influences future achievement and creativity in everyday life, and much more. We already know that it improves creativity, as measured by creativity tests. Longitudinal studies should be planned.

The outstanding innovation in teaching procedures is the Incubation Model of Teaching (Torrance & Safter, 1990). We know that it can be used with all ages, in every subject, and in all types of learning (verbal, kinesthetic, visual, music and rhythm, etc.). We do not know much about how it facilitates learning. Field reports indicate that it results in students' asking more questions, more experimenting, more reading and the like. However, there has been no serious research concerning these matters.

Very early, I recognized that sustained creative achievement was facilitated by having a mentor (*Guiding*

Creative Talent, 1962). Later, I demonstrated through a longitudinal study that having a mentor facilitates creative achievement (Mentor Relationships, 1984). With Kathy Goff and Neil Satterfield, I co-authored a book on mentoring in the culture of poverty (*Multicultural Mentoring of the Gifted and Talented*, 1998). Through mentoring, many students who live in poverty may become qualified for gifted programs. Dorothy Sisk has demonstrated, through a motivational program called *Project Push Up, that this can happen (Torrance & Sisk, Gifted and Talented Children in the Regular Classroom*, 1997).

We have learned much from our longitudinal follow-up studies of creative achievement. We have just conducted follow-up studies of elementary school pupils tested from 1958 through 1965. Two major follow-ups have been made of both the high school group and the elementary group. The high school group was tested for only one year, and the elementary group was tested every year for five years. The first important follow-up of the high school group (Torrance, 1972) found that there was a significant correlation between scores in the TTCT and both the quality and quantity of their publicly recognized creative achievements (canonical correlation of 0.59). In the 30-year (Torrance, 1993) follow-up, the correlations had dropped somewhat, but were still statistically significant. The evidence indicates that after thirty years, other factors such as motivation, persistence, courage, loving what one is doing, and the like, become more important than ability. I have called these the "beyonder" characteristics (Torrance & Safter, 1999).

The first elementary school follow-up was conducted 22 years after the testing had begun (Torrance, 1981). Again, there was strong evidence of the predictive validity of the TTCT (correlation of 0.58 for quality of creative achievement and 0.57 for quantity of creative achievement, significant at the 0.001 level). We are now in the midst of the 40-year follow-up of this group.

On the basis of responses received in 1980 from the elementary school participants, I developed the Manifesto for Children. In our present study, we asked questions to test the validity of the Manifesto. We still need studies from different kinds of populations and we need the Terman type of studies, using creativity instead of intelligence. It has become easier to locate such subjects by electronic means. I have continued to encourage students of creativity to initiate such studies.

Dissemination

The American public and the world at large were very slow to become aware that anything new had happened with creativity. The first big break came in 1961 when *Look* magazine (Brossard & Vachon, November 7, 1962) sent Chandler Brossard, a star interviewer and writer, and John Vachon, a top photographer, to interview and photograph the activities of Calvin Taylor, at the University of Utah, and me, at the University of Minnesota. Public response was enormous. I received 1,200 letters and a few telephone calls. This is who they were, what they wrote about, and what they asked about:

The People *Look* Reached

The 600 "*Look* Mail" letters in this table were the first of more than 1,200 received by the Bureau of Educational Research from readers of the article. The 600 other letters were selected at random from mail received as a result of articles by Dr. Torrance in professional journals.

Category of Writer	*Look* Mail	Other Mail	Total
College & University Faculty	52	217	269
College & University Students	46	70	116
Elementary & Secondary Teachers	58	39	97
Elementary & Secondary Principals	35	43	78
Counselors, Supervisors, Curriculum Workers & School Psychologists	113	71	184
Educators of Gifted Children	21	51	72
Parents of Gifted Children	130	9	139
Creative Individuals	31	0	31
Miscellaneous (Government Agencies, Business & Military Leaders, Publishers & Authors, etc.)	114	100	214
Total	**600**	**600**	**1,200**

What They Wrote About

In the 1,200 letters analyzed, there were 1,687 subject mentions. Many respondents discussed more than one subject.

Subject Discussed	*Look* Mail	Other Mail	Total
Requests for Tests, Testing Problems	332	183	515
Requests for Research Information	256	309	565
Writer's Own Research Discussed	85	73	159
Offers to Cooperate in Research	58	120	178
Requests for Conference Participation, Speeches, etc.	15	84	99
Expressions of Appreciation & Enthusiasm	112	50	172
Total Subject Mentions	**858**	**819**	**1,687**

LOOKING FORWARD

No one can speak with any degree of certainty about the future because there are no witnesses, records or reports of the future. Fortunately, there have been important developments in the study of the future. The futurists have made many useful contributions regarding what we can expect. In an effort to make "futurists" of all children, my late wife and I founded the Future Problem Solving Program in 1974. This program has developed into a national and international program which each year involves thousands of children and teachers or coaches, as they are called. There are annual bowls conducted by states, nations, and internationally.

Both the professional and "young futurists" have found that by analyzing current trends or events, they can predict what is likely to happen as a result. I have endeavored to determine some of the trends regarding the study and practice with regard to creativity.

Defining Creativity

Throughout the past century, there has been much controversy about defining creativity. Many definitions have been offered and none is considered precise, yet almost all of them seem to mean essentially the same thing. I think that Aleinikov (1999) accurately summarizes where we are with regard to defining creativity. He relates an incident which occurred at a creativity conference in Russia. A presenter reported that he had found 1000 definitions of creativity and that it was time to stop defining it. The speaker went on to say, "Nothing principally new can be invented." Thus, he offered what he thought was a final definition. Aleinikov inadvertently laughed. The presenter felt embarrassed and asked why. The explanation was simple. "You suggest that producing definitions must be stopped after 1000; why do you offer the 1001st?" Trying to stop further defining is the same as banning creativity because creation of a definition is creativity too, Alienikov explained.

Aleinikov went on to relate that the presenter came up to him afterwards. He then bet the presenter that he could give him at least two definitions that had no parallels in the presenter's collection. The presenter lost the bet. Definitions will continue endlessly, but people will learn not to be disturbed by it and continue finding out more about creativity.

It would be a disservice to have too limiting a definition. That was what happened to Binet near the beginning of the 20th century when he took the mental age approach in defining intelligence. Binet clearly recognized the existence of creative thinking abilities. In his *Les Idees Modernes sur les Enfants* (1909), he clearly recognized that "intelligence is not a single unitary function but that it consists of a union of all the little functions of discrimination, retention, imagination, ingenuity, and the like" (from Torrance, 1969). He also demonstrated that all of the abilities could be changed through what he called "mental orthopedics." However, using the mental age approach, he was forced to eliminate those test items (like imagination and intuition) which did not show year-by-year increases. My research (Torrance 1967, 1968) shows that there is significant variation in creative thinking abilities, as in the "fourth grade slump."

New Kinds of Creativity Tests

It may be slow in taking place, but I predict that this century will see a change in the nature of creativity tests. Thus far, such tests have provided measures only of verbal and figural creativity. At various times, attention has been called to different kinds of giftedness, but little has happened in regard to the use of tests for identification. Educators, psychologists, and the general public have been attracted to Howard Gardner's (1983, 1993, 1999) Multiple Intelligences. These include: linguistic, logical-mathematical, musical, bodily-kinesthetic, spatial, interpersonal, intrapersonal, naturalist, existential, and possibly, moral. Gardner (1999) himself has staunchly resisted the pressures to develop measures of these intelligences. However, Lazear (1994) has approached the assessment problem through observation. What is needed is ways to quantify observations.

There are already evidences that such tests are being developed and used. For the second year, such tests have been used in the St. Paul, Minnesota school system, as reported by the *Star Tribune* (Shah, November 1, 1999). As might be expected, these tests are described as "controversial but fair." The tests make use of a variety of puzzle exercises and trained observers. The tests are used in several school districts nationwide and are called the "modified Charlotte/Discover" method.

Many teachers are concerned that it may be too subjective and would not produce accurate results. Some children who had excelled on the old paper and pencil tests failed to qualify on the new tests. Three areas are emphasized: spatial artistic, spatial analytical, and oral linguistic. The children construct objects using colorful abstract pieces, complete puzzle exercises using geometric shapes to create different forms, use Legos, and make up stories and tell them orally. In addition, second graders complete a math worksheet and kindergarteners draw pictures and tell the teacher about them. Thus, the test tasks involve both creativity and intelligence. One teacher is quoted that one of his students who had struggled over a standardized test the previous day (just froze) but on these tests was full of confidence as he whizzed through the new tests. I feel sure that these action type tests will be further developed and be used more commonly in the coming century.

By combining the ideas behind the Charlotte/Discovery method of the St. Paul tests with insights inspired by Gardner's (1999) Multiple Intelligences, we may be able to satisfy our measurement needs in the next century.

Multicultural Influences

Interest in multicultural influences has been accelerating at the beginning of this century and will mostly likely continue. In fact, the 21st century may be known in history as the multicultural century. It certainly promises to be such insofar as developments regarding creativity is concerned. Interest in these multicultural influences on creativity has been slow to develop. I conducted one of the first multicultural studies of creativity. I wanted to find out if a "fourth grade slump" in the development of creativity occurred in other cultures. Creativity tests were administered to 500 to 1000 subjects in the following cultures: Australia, Germany, India, Norway, Western Samoa, and the Chinese, Malayan, British, and Tamil cultures in Singapore. We (Torrance, 1970, 1975) found more than cultural differences in the development of the creative abilities. I also learned about the cost of such studies and the reasons for the lack of them. We had a grant through the Cooperative Research Program of the United States Office of Education. Soon, the funds from the grant were exhausted, but there were still both internal and external pressures to complete the study. This almost bankrupted me.

The cost problem has continued to be a deterrent to the conduct of multicultural studies. Fortunately, two economic

means have now appeared. Under the editorship of Morris Stein (1999), *Creativity's Global Correspondents* has appeared and the journal *Childhood Education* published an international focus issue under the editorship of Karen Meador. Both of these will be described briefly.

Stein's 1999 *Global Correspondents* represented 22 nations from every continent. I shall describe examples of only four of the global correspondents.

Solange Wechsler (1999) is the correspondent from Brazilo. She reported that the major developments in Brazil have been in social problem solving, business and administrative groups, gifted education, and research findings. Wechsler herself has translated the Torrance Tests of Creative Thinking and developed other tests used primarily for identifying gifted children. Brazil has regularly sent large groups to the Creative Problem Solving Institute (CPSI) conducted by the Creative Education Foundation at Buffalo, New York and has hosted several international creativity conferences.

Klaus Urban is one of the correspondents from Germany and has been a leader in the World Council for Gifted and Talented Children. He has also been involved in the development of a creativity test called the Test for Creative Drawing Production (TCT-DP). Urban (1999) described the activities of the BIP Creative Center at Leipzig in three areas: teacher training programs, Creativity Schools, and Creativity Primary Schools. The Creativity Schools are of special interest. The first such school was founded in 1992 and since then additional schools have been established at all levels from nursery schools to independent and government schools, colleges, and leisure facilities. All Creativity Schools offer unique Creativity Development Programs for children. This program is directed towards the development of all the senses and promotes specialized development areas. Other schools are planned.

M.K. Raina (1999), who has edited and written several books dealing with multicultural creativity, was Creativity's Global Correspondent from India. Raina calls attention to the growing tendency to endorse the belief that theories of creativity derive from the culture's creation myths. He asserts that the religious tradition of India associates creativity with spiritual realization and the creative process and is considered to be spiritual, synthetic, and conforming. Through his books, Raina has pleaded for fostering appreciation of other cultures. He argues that to understand myths and metaphors underlying creativity in various religions and cultures will engender respect, acute sensitivity, and patience.

Kobus Neethling (1999) is Creativity's Global Correspondent from South Africa. Beginning as Planner for the Gifted, he became Director of a newly created Bureau of Information to improve international perceptions of South Africa. He trained every staff member of the Bureau of Information in creative problem solving. Soon he was called to do the same in other government departments, and finally he worked with cabinet members playing an important role in the formation of the New South Africa. He is now President of the South African Creative Education Foundation. He has a place where he hosts conferences and training for corporations, educational, and other professional groups. He sponsors an annual Creative Problem Solving Institute, and has written ten or more best sellers. His latest books deal with creativity in various sports, beginning with rugby, cricket, and soccer. Neethling reports that productivity standards are designed which provide employee empowerment by developing and reinforcing a series of power modes. This is a large part of implementing creative enhancement programs. He tells of promoting outcome-based education with a creativity emphasis.

The foregoing brief sketches of the news from only four of the over 55 global correspondents give one pause to wonder how much Stein's Global Correspondents will do to enhance the multicultural influences on creativity research and practice. Now let's turn to what might be set in motion by international issues of education journals.

The International Focus Issue of *Childhood Education*, edited by Karen Meador (1999), is a second example of another economical means of facilitating the dissemination of multicultural classroom practices. Teachers and researchers from eight different cultures describe an example from their experience in the cultivation of creativity in the classroom.

Mirka Saarilahti, Bonnie Cramond, and Helena Sieppi (1999) speak for Finland. In one classroom, Torrance's (1983) *Manifesto for Children* was the object of study. Primary schools emphasize: active learning, the development of information acquisition, new thought processes, strengthening creativity, problem solving, cooperation, and computer-based teaching.

Sharon Black (1999) tells how Polynesian legends were used in Hawaii to encourage culture vision and creativity. Boo-Kyung and Jongiun Kim (1999) of Korea describe how Korean picture books were used in the improvement of creativity. Sally Todd and Satoshi Shinzota (1999) relate how higher-level thinking and creativity were developed in Japan. Margaretta Gacheru, Mumma Opiyo, and Joan Smutny (1999) describe how story telling was used to develop creativity in Kenya. Jillian Rodd (1999) tells how young children in an English elementary school were encouraged to develop critical and creative thinking skills in spite of heavy curriculum demands to prepare children for national examinations. Margareta Dinca (1999) describes how a teacher education program was used as a force to improve creative thinking skills among young children in Romanian schools. Brad Wilcox and Monica Moreno (1999) describe turning points in Mexico which led to the development of creative skills. They describe a multicultural teacher education program in which students completed their student teaching in Washington, DC, Tonga, Samoa, Guatemala, and Mexico. In Mexico, high student engagement in learning activities was emphasized.

Influence of a Larger Number of Elderly

With increased longevity in almost all nations, there is an increase in the importance of creativity. We are called upon to be creative when encountering problems for which

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there are no known or practiced solutions. The demands of the modern world require older adults in particular to be creative. The pace of technological advances, globalization, economic and social change requires the elderly to find new solutions.

CONCLUDING STATEMENT

Above all, I hope we can make real progress in understanding the creatively gifted. I think that there is a good chance that this will happen. However, we need some big media event such as the Look story to grip the public! One such breakthrough is the book by Danielle Steel (1998), entitled, *His Bright Light*. Danielle Steel has written 46 novels, including many best sellers. *His Bright Light* is not fiction. It is a true account of her untiring effort to understand her extremely intelligent and creative son. His parents, teachers, counselors, medical doctors, psychiatrists, and schoolmates wanted to understand him, but they failed and the results were tragic.

In my teaching at both a public and private boarding school, I encountered many similar boys. This sent me on my search through a Master's degree in counseling and a doctorate in educational psychology, psychology, and sociology. Since then, I have not stopped seeking new ways to meet the needs of creative children and young people and rescue them from the neglect of a system that offers little support or understanding. The future, I believe, will see an increase in recognition and intervention for the "different drummers" in all cultures.

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Alumni Foundation Distinguished Professor Emeritus at the University of Georgia in Athens, **E. PAUL TORRANCE** is author of over 1,500 books, articles and monographs on creativity and gifted education. His leadership and pioneer work in the field have been recognized with many national and international awards and citations. He has lectured and published widely on the subject of creativity, most recently, *The Manifesto: A Guide to Developing a Creative Career* (2002).

MUST-HAVE BOOKS FOR EDUCATORS OF THE GIFTED AND TALENTED

By Jerry Flack

Every field has its literature and gifted child education is certainly no exception. There is a wealth of scholarship in the field, initiated in the 1920s by Lewis Terman at Stanford University. In the past decade there has been a great increase in the number of gifted education scholarly texts and practical strategy books. The beginning teacher of gifted education can profit mightily from the wisdom found in the books listed below. Of course, any list of ten must-have books in gifted child education necessarily omit at least a score of other outstanding titles and authors. Although they are not listed here, certainly the books of E. Paul Torrance, Carol Tomlinson, Donald J. Treffinger, Sandra Kaplan, Robert Sternberg, Carolyn Callahan, Howard Gardner, and many others should become a part of the wise teacher's reading agenda. The author is confident that energetic new teachers will ultimately find their way to all the great resources in gifted child education. These ten must-have books are listed in no particular order of preference.

Teaching Young Gifted Children in the Regular Classroom: Identifying, Nurturing, and Challenging Ages 4-9 by Joan Franklin Smutny, Sally Yahnke Walker, and Elizabeth A. Meckstroth. Minneapolis, MN: Free Spirit Publishing, 1997.

Primary teachers of gifted children state that they simply could not teach young gifted children without this book. It is indispensable. Since formal identification of preschool and primary-aged children as gifted students is rare, two features of this eminently practical book are especially valuable. First, the authors provide relevant activities for all children. And second, they furnish numerous ways in which teachers can observe gifted and talented behaviors while children learn and play. The authors also share pages of valuable information-gathering forms such as "About My Child," that help classroom teachers learn about the special talents young gifted children possess but have yet to exhibit at school. Finally, the authors provide informed discussions about such relevant issues as grouping, social and emotional needs, and assessment. This book is a gem.

Teaching Gifted Kids in the Regular Classroom: Strategies and Techniques Every Teacher Can Use to Meet the Academic Needs of the Gifted and Talented , revised, expanded, updated edition, by Susan Winebrenner. Minneapolis, MN: Free Spirit Publishing, 2000.

Almost from the day the first edition was published in 1992, Susan Winebrenner's book became a classic in the field. Moreover, it is a book that has transcended the relatively small field of gifted child education and has become popular in professional teacher libraries everywhere. One of the great strengths of Winebrenner's book is its ease in use. The author provides a multitude of forms busy teachers need to instantly begin compacting, enriching, and accelerating the curriculum for their students. She also provides Extension Menus of activities to challenge gifted students, and addresses virtually every discipline within the curriculum. In the new edition of the book, she provides a special chapter for parents, and expanded information on identification. Winebrenner was a classroom teacher and a gifted education specialist for many years, and her experience and wisdom shine through the pages of this very practical resource.

Education of the Gifted and Talented, 4th Edition, by Gary A. Davis and Sylvia B. Rimm. Needham Heights, MA: Allyn and Bacon, 1998.

Davis and Rimm attempt to place all the critical information teachers should have about teaching gifted students in one comprehensive volume. This is the best standard textbook in the field, and is used in countless gifted education courses across the nation. The text has several positive features. First, it is truly comprehensive including a history of the field, gifted characteristics and identification, programming options, administrative adaptations, curriculum models, creativity, underachievement, gifted children with disabilities, parenting, and much more. Indeed, it is difficult to think of a subject Davis and Rimm have overlooked. The second great virtue of this text is its readability. While they do not sacrifice scholarship, the authors write in a style that makes this book a pleasure to read.

Handbook of Gifted Education, 2nd edition, by Nicholas Colangelo (ed.) and Gary A. Davis (ed.). Needham Heights, MA: Allyn and Bacon, 1997.

This is an erudite work that contains writings by the top scholars in the field, and answers almost every question a teacher or parent is likely to ask. The scope is staggering and the expertise of the authors is impressive. Howard Gardner writes about multiple intelligences. C. June Maker writes about enrichment and acceleration. S. Lee Winocur writes about critical thinking. A specially strong section is that on counseling, which offers valuable insights for teachers, parents, and school counselors. Overall, the best experts in the field write about 44 compelling topics of interest.

The Multiple Menu Model: A Practical Guide for Developing Differentiated Curriculum by Joseph S. Renzulli, Jann H. Leppien, and Thomas S. Hays. Mansfield Center, Creative Learning Press, 2000.

Perhaps no topic in gifted education is more talked about today than "differentiated curriculum." The need for differentiation is universally recognized, but the question remains, "How do you do it?" This book provides the answers. It opens with a knowledge menu, providing a worthy introduction to knowledge and how it is constructed. The authors then move on to menus of instructional

strategies, sequences, and products, including excellent examples of teacher-created materials. They also provide a wealth of templates teachers can use to design their own differentiated curriculum. This is a must-have volume for new teachers who are serious about creating appropriate curriculum for gifted and talented learners.

Work Left Undone: Choices and Compromises of Talented Females by Sally M. Reis. Mansfield Center, Creative Learning Press, 1998.

One of the most compelling issues facing parents and teachers, and indeed, gifted students themselves, is the issue of equity for gifted females. Across the years, a number of scholars have examined this critical issue and have written wisely and informatively about it. Sally Reis has written what may well be the definitive book on the topic. *Work Left Undone* should be read by every teacher-not just those who teach gifted- for as Reis points out, many girls hide their giftedness and may not even be identified. This is powerful reading. Her use of case studies is particularly effective. The human stories cause the statistics to resonate with the reader and take on personal significance. Indeed she writes so well and explains research so cogently that the reader experiences the feeling of having a fascinating personal conversation with her about this vital subject.

The Gifted Kids' Survival Guide: A Teen Handbook by Judy Galbraith and Jim Delisle. Minneapolis, MN: Free Spirit Publishing, 1996.

This book has seen several editions and revisions, all of which are excellent resources for gifted and talented students. The best thing about this resource is its potential to empower students. For example, recently a middle school student patiently and tactfully set up a conference with her grade-level principal and all her teachers. At the meeting she politely and diplomatically expressed her concerns about the lack of challenge in her present education. The adults were impressed by how well Rachel approached the problem and enthusiastically began to differentiate the curriculum for her. Where did she gain her idea for the conference? From The Gifted Kids' Survival Guide. This book is filled with information that answers students' questions about being gifted and provides strategies for them to make their education and their lives more fulfilling.

Growing Up Gifted: Developing the Potential of Children at Home and at School, 5th edition, by Barbara Clark. Columbus, OH: Merrill, 1997.

Since 1979 Barbara Clark's *Growing Up Gifted* has been a boon to both parents and educators who wish to better understand the nature of giftedness and how to nurture it. It is an omnibus text with tremendous breadth, covering definitions, identification, programs, special populations, and differen-tiated content and instruction. However, additional strengths of Clark's work are her explanation of brain research and its applicability to gifted students, and her emphasis on the brain's intuitive capacity. Clark's own model of integrating intellectual functions (intuitive, cognitive, affective, and physical/sensing) is particularly well explained and is accompanied by fine model lessons. *Growing Up Gifted* also places special emphasis on young gifted children, no doubt one reason why the book is so popular with parents.

Excellence in Educating Gifted & Talented Learners, 3rd edition, by Joyce VanTassel-Baska (ed.). Denver, CO: Love Publishing, 1998.

There are many strengths in this text, but perhaps the greatest is the expertise of the five authors of its 28 chapters: Joyce VanTassel-Baska, John Feldhusen, Linda Silverman, Kenneth Seeley, and Camilla Benbow. Each brings to the book his or her particular expertise. For example, Silverman writes wisely and informatively about Dabrowski's concept of overexcitabilities and visual-spatial gifted learners. Benbow explores acceleration as a method of meeting the academic needs of gifted learners. VanTassel-Baska outlines a comprehensive model for program development. A particular bonus is the devotion of separate chapters to specific disciplines such as math, science, social studies, language arts, and the arts and humanities. The writing is uniformly excellent, and although it is the product of five separate people, the chapters flow together seamlessly.

Encyclopedia of Creativity, 2 vols. by Mark A. Runco (ed.) & Steven R. Pritzker (ed.). San Diego, CA: Academic Press, 1999

Creativity is one of the most critical elements of gifted behavior, yet remains one of the most elusive concepts in the field. The authors have weighed in with a massive, two-volume, 1660+ page encyclopedia that attempts to survey and define this most important but intangible psychological construct. Given the imprecise nature of the subject matter, they succeed to a remarkable degree in bringing forth a valuable reference work that serves both general and scholarly audiences. Its nearly 200 articles include; specific fields of study such as art, music, dance, design, architecture and political science; creativity related to circumstances such as genetics, birth order, and cultural differences: educational programs and courses; and 23 biographies of creative individuals such as Charles Darwin, Leonardo da Vinci, Sylvia Plath, Jean Piaget, Alexander Graham Bell, Georgia O'Keeffe, and Virginia Woolf. Creativity affects and enriches us all in music listened to, invented tools used, or art and design observed. When experts offer explanations of how it works to make life better, readers should take note.

JERRY D. FLACK, is Professor of Education and President's Teaching Scholar at the University of Colorado. His publications include: From the Land of Enchantment; Creative Teaching with Fairy Tales; Inventions and Inventors; Lives of Promise, Odysseys; and Voyages and Inventing.

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A REVIEW OF *THE PARALLEL CURRICULUM: A DESIGN TO DEVELOP HIGH POTENTIAL AND CHALLENGE HIGH-ABILITY LEARNERS*

By Carol Ann Tomlinson, Sandra N. Kaplan, Joseph S. Renzulli, Jeanne Purcell, Jann Leppien, and Deborah Burns. Thousand Oaks, CA: Corwin Press, 2001.

By Elaine Wiener

Each day, in my classroom, I tell my students that they are the keepers of history-that they will add what they learn and the history they make to what came before. It is a sacred honor, and some children will carry this with them all their lives. Often adult writers ignore this obligation because it is so important for them to imprint their ideas only.

The *Parallel Curriculum* writers are very esteemed in their field, and they are secure and mature enough to pay tribute to those who came before: "...we acknowledge with a profound sense of heritage the work of all those who have pioneered our understanding of what it means to teach for expertise, those who have developed that understanding over the years, and those who continue to develop that understanding."

Its publisher describes the book with these words: "The parallel curriculum model offers four *parallel* approaches to curriculum development to ensure rich curriculum for all learners, and illustrates ascending *intellectual demand* as a means of extending the intensity of challenge as students develop along a continuum toward expertise in learning."

Obviously, this book is a resource, but you could design a whole curriculum with it because the details are so specific. Format is everything in life, especially for teachers who are so busy. This format is very clean including lists, graphics, boxed in facts, bulleted details, and anecdotal stories. There are questions to guide the way which could function like topic sentences and benchmarks. It also comes in the teacher-friendly size of 8 1/2 by 11 inches.

When you think about the chapter headings you realize that although leaders in gifted education lecture and provide inservices as well as handouts about parallel curriculum, it is now packaged in a book. There probably is no end to the information, but this is quite a compact start.

Chapter 1: The Rationale for an Evolving Conception of Curriculum to Develop Expertise

Chapter 2: An Overview of the Parallel Curriculum Model

Chapter 3: The Essentials of Curriculum Design

Chapter 4: The Core Curriculum Parallel

Chapter 5: The Curriculum of Connections Parallel

Chapter 6: The Curriculum of Practice Parallel

Chapter 7: The Curriculum of Identity Parallel

Chapter 8: Making Decisions About the Use of the Parallel Curriculum Model

This reference is an ideal source for any educator, but especially for teachers working in teams. This would keep their focus, fill in the holes in their knowledge, and especially provide understanding for the reasons behind this philosophy.

ELAINE WIENER is Associate Editor for Book Reviews for *Gifted Education Communicator*. She teaches a self-contained class for gifted students at Allen Elementary School in Garden Grove, CA.

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